U.S. DEPARTMENT OF COMMERCE
National Technical Information Service

PB-281 224

Model State Information System Training Program. Volume III. Instructor's Handbook for Data Entry

Cincinnati Univ, Ohio Southwestern Ohio Regional Computer Ctr

Prepared for

Environmental Protection Agency, Washington, D C

Jun 77

PB 281 224

Model State Information System
Training Program

Volume III

Instructor's Handbook

For

DATA ENTRY

Prepared for the

U.S. Environmental Protection Agency
Office of Water Supply
Washington, D.C. 20460
under GSA Contract No. GS-05S-10458
Task Assignment OWS-77-01

by the

SouthWestern Ohio Regional Computer Center
Cincinnati, Ohio
June, 1977

REPRODUCED BY
NATIONAL TECHNICAL
INFORMATION SERVICE
U. S. DEPARTMENT OF COMMERCE
SPRINGFIELD, VA. 22161

BIBLIOGRAPHIC DATA SHEET	1. Report No. EPA 440/6-77-028-7	2.	3. Recipient's Accession No. PB281224
4. Title and Subtitle MSIS Volume III - Instructor's Handbook for Data Entry			5. Report Date June 1977
			6.
7. Author(s) Southwestern Ohio Regional Computer Center			8. Performing Organization Rept. No.
9. Performing Organization Name and Address Southwestern Ohio Regional Computer Center 3333 Vine Street Cincinnati, OH 45220			10. Project/Task/Work Unit No. OWS-77-01
			11. Contract/Grant No. GSA Contract # GS-05S-10458
12. Sponsoring Organization Name and Address U. S. Environmental Protection Agency Office of Drinking Water 401 M Street S.W. Washington, D.C. 20460			13. Type of Report & Period Covered
			14.

15. Supplementary Notes

16. Abstracts

This Instructor's Handbook is one of six prepared for the U.S. Environmental Protection Agency Office of Drinking Water by the Southwestern Ohio Regional Computer Center (SWORCC). Its purpose is to help instructors teach State and EPA personnel about Data Entry for the Model State Information System (MSIS).

17. Key Words and Document Analysis. 17a. Descriptors

17b. Identifiers/Open-Ended Terms

17c. COSATI Field/Group

18. Availability Statement RELEASE UNLIMITED	19. Security Class (This Report) UNCLASSIFIED	21. No. of Pages 340
	20. Security Class (This Page UNCLASSIFIED	22. Price A15-A01

ACKNOWLEDGEMENTS

No major effort may conclude without proper acknowledgement of help received. During the seven months required for gestation and birth of the six MSIS training programs, several individuals rendered indispensable help. Joseph Bagby of the University of Cincinnati's Faculty Resource Center, and Thomas Bartlett and Daun Richards of SWORCC bore the major burdens of creativity and revision. They were aided especially by Janis Cowperthwaite and Thomas Manz of SWORCC, who reviewed content for technical accuracy. Office of Water Supply personnel suffered many questions, especially Arnold Kuzmack, Fredrick T. Martin, and Peter Bengtson. Finally, SWORCC's Systems Division Director, John W. Rust, provided urgently needed clerical and moral support. We all thank them all. To those whom we have inadvertently overlooked, our apologies and our thanks.

Ellen G. Miller
Project Manager, OWS-77-01

INTRODUCTION

This Instructor's Handbook is one of six prepared for the U.S. Environmental Protection Agency's Office of Water Supply by the SouthWestern Ohio Regional Computer Center (SWORCC). Its purpose is to help instructors teach State and EPA personnel about the Model State Information System (MSIS). Specific information is presented on:

- The course
- Units comprising the course
- Content of each unit
- Instructor preparation
- Recommended presentation
- Evaluation

The handbook was designed with the expectation that two uses will be made of it: 1) During on-site visits to States by the SWORCC training team, and 2) by State personnel during subsequent training within the State. Although it is felt that both content and suggested sequence of material contained herein will be optimum for most trainees, it is realized that State training needs will vary. This handbook was assembled in loose-leaf format, and the course itself was designed to be flexible. Both flexible physical format and organization will be helpful to those States that use the handbook for future training of State personnel.

The handbook has four parts: Design Criteria, Team Procedures, Course Content, and Course Reference Material. Part III, Course Content, contains the real heart of the handbook and takes a formal approach to training. It will be noted that specific goals and behavorial objectives are listed for each training unit together with self-measurement techniques and recommended achievement levels. Pre- and post- tests are used to evaluate the degree to which participants attain course goals and behavioral objectives.

Since trainees will be furnished a Participant's Handbook, the instructor should become familiar with its contents. It is intended that all trainees will use their own copy of the appropriate Participant's Handbook throughout the course, and will retain it for future reference. It is assumed that trainees will learn the most about MSIS if they take all the courses offered. However, each course was designed as a free-standing, complete entity to accommodate partial attendance by trainees.

One last introductory comment. Part I of this handbook, Design Criteria, tells how the MSIS training program evolved, but also discusses the criteria used to design the program -

assumptions, needs assessment, limiting parameters, teaching methods, and training philosophy. Familiarity with this background will increase overall understanding of this handbook and of the entire MSIS Training Program.

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MODEL STATE INFORMATION SYSTEM

PART I

DESIGN CRITERIA

MSIS

INTRODUCTION

The purpose of this portion of the handbook is to convey to the user information which, though not directly concerned with course content, will aid in achieving a fuller understanding of the entire MSIS Training Program. The MSIS Training Program consists of six courses. They are:

- MSIS Overview
- MSIS Subsystems
- Data Entry
- Selection Process
- MSIS Components
- System Specifications

BACKGROUND:

The responsibility for implementing the Safe Drinking Water Act of 1974 was delegated to the Office of Water Supply (OWS) of the U.S. Environmental Protection Agency (EPA). In order to provide the States and EPA Regions with the capability to fulfill their basic responsibilities for monitoring water quality, as required by the Safe Drinking Water Act, OWS entered into a series of contracts.

The first series, with American Management Systems, Inc. (AMS) of Arlington, Virginia, resulted in both the concept of an informational system and its computerized version (the Model State Information System).

The second series of contracts was with the SouthWestern Ohio Regional Computer Center (SWORCC) of Cincinnati, Ohio. One major contract was to perform the detailed systems design, programming, testing and documentation of the computerized Model State Information System (GSA Contract No. GS-05S-10458, Task Assignment No. OWS-76-02).

Installation Plan - Phase 1, the other major contract, was identified as Task Assignment No. OWS-77-01, under the GSA Contract. The dual purposes of that task were as follows:

- Assist the EPA Regions in ascertaining the needs of the States and Regions for aid while installing the MSIS.
- Develop training packages based on Regional recommendations.

The MSIS Training Program is a direct result of this latter contract.

TRAINING PHILOSOPHY:

The SWORCC training philosophy can be stated briefly as follows: Every training program should contain five distinct phases - goal setting, needs assessment, activity planning, activity conducting and evaluation. Subsequent paragraphs will relate each of these program phases to the MSIS Training Program.

Goal Setting: The need for goals is obvious and most programs have them. Usually, however, they are stated in vague terms; as a consequence, progress toward obtaining them may be difficult to measure. In this instance the broad goal was established when the Office of Water Supply directed SWORCC to develop a training program for the MSIS. Within the training program, a specific goal has been listed for each course, and for each unit within a course.

Needs Assessment: The needs assessment phase is absolutely necessary to focus the training effort. First, it is here that information is gathered on the current training level of the population to be trained. Second, if properly designed, it gives that same population some input into decision-making on the program itself as to kind, amount and length of training. Therefore the program can be designed more nearly to suit not only the needs but also the desires of those to be trained. The resulting motivation on the part of the trainees is of subsequent benefit in enhancing transfer of training from the training environment to the job setting.

For MSIS, the needs assessment phase was accomplished through the use of Background Information Packages (BIP's) which were distributed to all States through the ten EPA Regional Offices. The information from the BIP's was used in making decisions on the type, amount, and length of training.

Activity Planning: The educational research literature was drawn upon heavily during activity planning. The finding by Dubin and Taveggia** that all teaching methods are equivalent gave complete freedom to choose a variety of instructional techniques to maintain both trainer and trainee interest. Knowles' discussion of adults and the learning environment was felt to be especially applicable to the training environment. First, he observes that an adult perceives himself to be wholly self-directed and tends to resist learning under conditions that are incongruent with this self-concept of autonomous individuality. Because of this, the learning climate should be one in which adults feel at ease and the psychological climate should be one of respect, acceptance, and support; the evaluation of learning should be free of value judgment and should focus on self-evaluation and a measurement of progress toward a goal.

Second, Knowles points out that adults, by definition, have a large volume of varied experiences available to them and that if these experiences are not used or are minimized, the adult feels rejected as a person. Here the implications point toward group discussion and practical application of the learning experience. Finally, Knowles tells us that adults have a perspective of immediacy of application of learning - a problem-centered frame of mind - and suggests that all adult learning experiences should commence by a sharing of common problems.

We concur with these research findings; they are reflected in our requirements for an adult learning environment (a large comfortable room, movable chairs, newsprint rather than blackboards, coffee, self-evaluation, etc.); recognition of valuable previous experience of trainees (small group discussion, large group discussion); and allowance for immediate application of learning (simulation, problem solving, and hands-on practice).

Activity Conducting: The activity conducting phase of a training program, though certainly always present, does seem to have been the key to the past failure of many otherwise excellent technical training programs. Mannion expressed this quite clearly during a visit to SWORCC in December, 1976. He felt that the U.S. government has had good success in the past with the development of sound technical programs, but that the failure of such programs had often been in the implementation phase. He attributed this failure to poor instructor training and poor transfer of training from the training environment to the job setting. SWORCC has strived to reduce both problems in the design of the MSIS Training Program.

The problem of instructor training was attacked directly by having the University of Cincinnati's Faculty Resource Center (FRC) conduct the necessary training. Grasha's approach to MSIS instructor training was similar to that previously found useful by the FRC with faculty at the University of Cincinnati. Essentially, a team approach was applied whereby practice sessions were held using actual MSIS training literature. Observations (audio or visual, as appropriate), were made and feedback sessions were held.

The teams formed were basically the same teams that conducted training in the field and, when possible, the FRC staff member spent 1-2 days on-location with the team during early State visits. Keeping the same persons assigned to one teaching team facilitates formulative evaluation, which is the ongoing improvement of the training program due to student feedback and trainer perceptions. Using an FRC teaching expert to help the team during its on-site visit also aids in formulative evaluation.

Goldstein speaks directly to the problem of transfer of training and lists two areas as being especially pertinent: Trainee motivation, and the similarity of training and the job environment. The SWORCC design has focused on trainee motivation during MSIS instructor training, as well as during on-site training. Knowles' comparison of pedagogy (teaching of children) with andragogy (teaching of adults) was used when designing maximally motivating content and teaching methods. Extrinsic motivations by instructors in the form of praise, encouragement, etc., was incorporated into the instructor training. The "hands-on" technique of training employed to input data to the computer employs Knowles' concept of problem-centered training and Goldstein's recommendation for similarity of job and training environment.

Evaluation: The last item in the SWORCC training philosophy, and perhaps the most troublesome, is evaluation. The training literature is of little help here since, as Goldstein points out, very few training programs are evaluated at all. Those discussions which do appear in the literature seem to concentrate on the training environment and techniques used there with little attempt to relate these techniques to job performance. The MSIS Training Program uses a simple three step evaluation process: Pre-test and post-test on the training material, and continuous evaluation of the learning process.

Some specific methods of continuous evaluation are: daily, written feedback from trainees; daily process or evaluation by the training team; use of an observor on the training team; and debriefing of the training team by the project managers.

INTENDED USE:

Perhaps the best way to convey intended use of the MSIS Training Program is simply to list the more important assumptions made. For convenience, they are listed under Trainee, Trainer, and General:

Trainee Assumptions:

1. Each trainee will not necessarily attend all MSIS training courses offered.
2. Each trainee will have a participant handbook available to him/her during the training period.
3. The number of trainees will be between five (5) and thirty (30).
4. Those attending training sessions will not know each other.

5. Persons selected to attend are responsible professionals concerned with satisfaction of problem-oriented needs.
6. Trainees will (generally) be expected to act as instructors to train other personnel in their area.
7. Trainees will need a brief data processing orientation which defines DP terminology, etc.
8. Trainees must be provided the general context of MSIS (the Safe Drinking Water Act, Regulations, etc.).
9. Those successfully completing the training (Unit, Course, MSIS Training Program) will be able to confidently apply the skills gained when returning to the job environment.

Trainer Assumptions:

1. A minimum of two trainers is available for each training session.
2. Trainers are fully qualified in both course content about and functions of MSIS.
3. Trainers are fully cognizant of and qualified in instructional techniques required to obtain a maximally effective training environment.
4. Trainers practice observation/feedback techniques to insure continuous improvement of the training process.

General Assumptions:

1. Any course, and any unit of any course within the entire MSIS Training Program, can be conducted independently with appropriate introduction to set context.
2. On-site training is conducted in each State for that State as directed by the Office of Water Supply.
3. Courses will be used by many States to train their own personnel following the on-site visit by the training team.

LIMITATIONS:

Assumptions beget limitations and it is well to end this discourse to the user by focusing his or her attention on the things that the MSIS Training Program cannot do.

It is impossible for one training program to fulfill the diverse needs of thirty or more States. This program is a prototype based on SWORCC's interpretation of the common needs of the States as expressed in the BIP's. MSIS training is tailored to specific and diverse needs as exemplified by providing a unit for optional material with each course.

MSIS is not a simple computer system. The instructor must know about MSIS and have used it to prepare for training others; this handbook alone cannot instruct the instructor. However, it does provide a framework for organizing what is to be taught about MSIS and gives brief information that will focus the instructor on major areas to be taught.

It is realized that some troublesome areas may exist. These areas of confusion must be identified and corrected by the user through observation, question, interpretation of evaluation results, or other methods.

MODEL STATE INFORMATION SYSTEM

PART II

TEAM PROCEDURES

INTRODUCTION

Purpose

The purpose of this portion of the handbook is to provide a checklist of all the actions required of the training team to insure a successful training effort. This section was written especially for use by the three-person teams that will visit States to teach water division personnel about MSIS.

States wishing to have their own personnel use these materials to train other in-State personnel may find it necessary to modify the activities listed here.

Description

Part II, Team Procedures, consists of the following sections:

- Management philosophy
- Organization
- State visit list
  - A. Pre-visit activities
  - B. On-site activities
  - C. Post-visit activities
- Policies and procedures
- Kickoff
- Warmup
- Evaluation
- Forms

These sections should provide the training team with most information needed to prepare for and report about on-site training.

Management Philosophy

The sole purpose of the MSIS Training Program is to help State and regional personnel learn about the Model State Information System, which in turn aids States and regions in monitoring the quality of public drinking water. Correspondingly, the MSIS training philosophy is to provide service and support to States and regions through a training program that moves from the general (Vol. I, MSIS Overview) to the specific (such as Vol.IV, Selection Process and Vol. VI, System Specifications). The individual who follows the progression of courses will end up with knowledge that should expedite his daily use and operation of MSIS.

The training teams are service-oriented. This means that they answer questions, teach courses, lead discussions, run workshops, and try to impart maximum knowledge about MSIS to trainees.

Service orientation also means that the teams utilize a maximum amount of two-way communication, which increases participation and a sense of ownership among trainees; that questions are encouraged at any time, for the unasked question means that subsequent teaching material will not be understood; and that the most participative teaching methods possible are used, for the trainees are professionals with valuable knowledge and insight.

In short, the MSIS training philosophy is respect--of trainees by the team; of each team member by the others. The goal is maximum knowledge learned by trainees, who will use MSIS daily. Any communication and teaching method that facilitates the goal is valid and should be tried out.

Organization

Two teams comprised of three members will train State and regional personnel in four of the six MSIS Training Program courses. Those four courses are:

- MSIS Overview
- MSIS Subsystems
- Data Entry
- Selection Process

The first course is intended for both water division and ADP personnel; the remainder were created for water division personnel. The three team members and their corresponding duties are:

1. Senior Teacher -- Handles most teaching and all administrative tasks while onsite.

2. Junior Teacher -- Handles some teaching assignments; coordinates equipment and supplies; and provides backup to the Senior Teacher.

3. Observor -- Responsible for all evaluation activities (observation of teaching methods, pre- and post-tests, exercises); keeps all written forms (evaluative and administrative).

The three team members will debrief together daily to assess the trainees' progress in learning about MSIS, and to assess the effectiveness of the teaching method. These debriefings will be recorded in the team log. Through debriefings and the team log, the team will correct its own problems, thus achieving the formulative evaluation cited in Part I. The dynamic process of performance, observation, feedback, and correction will result in continuous improvement of the training process.

State Visit List

Many steps are required of team members before, during, and after each State visit. The purpose of this set of steps is to (1) prepare the team as fully as possible for the State visit; (2) utilize resources and manpower in an economical fashion; (3) adhere to the national calendar of State visits with a maximum number of changes; and (4) provide unambiguous criteria for carrying out tasks during the State visit.

The set of steps listed below covers a training team's pre-visit activities, on-site activities, and post-visit activities. Management techniques used include checkoff lists, written reports, and meetings between the teams and the project manager.

Each list of activities contains:

1. Sequential steps

2. Who's responsible for the step

    --ST = Senior Teacher

    --JT = Junior Teacher

    --OB = Observer

    --All = Each team member

3. Explanatory comments

A. Pre-visit activities

Step	Who	Comments
1. Review all of this section	All	
2. Review Part III of each Instructor's Handbook	All	You're responsible for all course content and for answering questions.
3. Review each participant's Handbook	All	You'll help participants better when you know what their handbooks contain.
4. Examine State visit data	All	Study the detailed information provided from the State Checklist. It will include: . Training facilities . Trainee numbers and type . Name of State training contact . Dates of visit
5. Examine prior team logs	All	Comments in team logs may help.
6. Call State water contact	ST	Verify all State data pertaining to training. Discuss facilities; get his home phone. He is the key person to aid you while onsite.
7. Prepare course modifications	All	Using State data and team logs, prepare any additions or deletions needed. Use Form 1, Course Modifications.
8. Decide on Kickoff method	All	See Kickoff, this section.
9. Decide on type(s) of warmups to use	All	See Warmup, this section.
10. Fill out a daily agenda for each course offered	All	Use Form 2, Daily Agenda.
11. Order all material from Materials Coordinator	JT	Use Form 3, Water Team Materials Inventory, with specific data for this State. Do this at least 5 working days prior to departure.
12. Check off inventory of materials received	JT	Use Form 3.
13. Hold departure briefing	All	Meet with project manager to discuss: a. Course modifications b. Course warmups c. Daily agendas

Step	Who	Comments
13. Hold departure briefing, con't	All	d. Accommodations e. Travel arrangements f. Conversations with State contact g. Policies and procedures Leave copy of Forms 1-3 with the project manager.
14. Last call to State water contact	ST	Set up time and place for first meeting

B. On-site activities.

Arrival day -- Step	Who	Comments
1. Meet with State water contact	ST	Verify with State water contact that the State Checklist is true. If any required items are not obtainable, follow steps listed on State Checklist. Annotate State Checklist for all items and their status when onsite.
	All	Visit facility if possible; modify as needed.
2. Review roster of trainees	All	Fill out Form 4, Course Roster.
3. Finalize course modifications	All	Information about trainees may require changes.
4. Finalize Warmup	All	
5. Finalize Kickoff	All	
6. Finalize daily agendas	All	Use Form 2.
7. Telephone project manager	ST	Report about onsite situation; phone office or home.
8. Copy all charts	JT	Use newsprint; write BIG so that it is clearly visible at back of room.
Day 1		
1. Go to facility at least 1 hour before start of session	All	Make last-minute changes; locate restrooms, telephones, snack bar, etc.
2. Kickoff for this State visit	ST	Stress: . Purpose of MSIS training . MSIS product of many contributors . Courses to be taught . Materials to be left for State use . Evaluation . Certificate of completion . MSIS training philosophy . Encourage questions . Introduce team
3. Get updated roster of trainees	ST	Pass around Form 4 for all to sign. Get copies made so every trainee has one for himself. Keep the master.

B. On-site activities, con't

Day 1, con't

Step	Who	Comments
4. Warmup	All	Help trainees get to know each other and feel at ease.
5. Course pre-test	OB	Pass out pre-test. Allow 10-15 minutes to fill out both Background Information and pre-test. Collect all papers. Record scores on Form 5, pre- and post-test analysis.
6. Course Content	All	Follow Part III of this Instructor's Handbook.
	OB	Record class analysis on Form 6.
7. During lunch, sign student certificates	ST	Prepare one certificate for each trainee on Roster.
8. Course post-test	OB	Pass out post-test; allow 10 minutes to complete it. Collect all papers. Record scores on Form 5.
9. Award certificates	ST	Personally award certificates to each trainee
10. Daily call to project manager	ST	By 5 p.m. Cincinnati time if possible, call project manager.
11. Team debriefing	All	Daily debriefing to cover: a. results of pre- and post-tests b. problems c. successes d. make up new observor's class analysis (form 6) for tomorrow e. observations f. recommendations (will be typed later and shared with other water team).
12. Write up daily log	Rotate	Write up points a-f in daily log, which will be turned in at end of trip.

Day 2

Repeat Day 1's steps 3-12

B. On-site activities, con't

Step	Who	Comments
Day 3		
Repeat Day 1's steps 3-12		
Day 4		
Repeat Day 1's steps 3-12		
Day 5		
Repeat Day 1's steps 3-12		
13. Give State contact set of MSIS training materials	ST	Use Form 7, Water Training Sign Off Sheet.
14. Have State Contact check off that training was completed	ST	Use Form 7.
15. Thank all local support personnel	All	Especially thank the State water contact for his/her help this week and before the visit.
Departure Day:		
1. Pack all extra material to return to Materials Coordinator	JT	Use Form 3.

C. Post-visit activities

Step	Who	Comments
1. Complete a Trip Summary	OB, ST	Use Form 8, Water Team Trip Summary
2. Have team recommendations typed up from Team Log	ST	Use Form 9, Water Team Recommendations
3. Trip debriefing	All	Meet with project manager to discuss: a. how it went 1. per trainees 2. per team b. results of evaluation c. written team recommendations d. what other teams need to know Turn in updated versions of forms 1-9 and the team log.
4. Review Form 9, Water Team Recommendations from the other team.	ST	The other team may have recommendations you can use.

Policies and Procedures

Aside from the procedures outlined for pre-visit, on-site, and post-visit activities, the following rules apply:

1. Follow explicitly the State Checklist, Section 2.0. It contains requirements which the State must fulfill, and whether or not the requirement was promised and verified by telephone prior to the visit.

   Annotate Section 2.0. If a requirement is not forthcoming, take the steps listed in Section 6.0.

2. For other circumstances which appear to prevent carrying out training of water division personnel and cannot be resolved with the State water contact, immediately telephone the project manager. Notify the State water contact of the problem, having called the project manager, and the next steps authorized by the project manager. Carry out those steps in detail.

   In the team log, write up the problem, attempts made to resolve it with the State water contact, time and content of conversation with project manager, and authorized steps.

   Carry out each authorized step, noting all actions in team log.

3. In emergency situations (illness, crisis), call the project manager immediately; if unable to reach her, call the associate project manager at work or home, or the Director, CSD at work or home.

Kickoff

The purpose of kickoff activities is to set the desired tone for the entire State visit. The kickoff, or opening presentation, takes place first thing on Day 1.

Several items must be covered in the kickoff; they are listed more or less in their order of importance.

1. Purpose of State visit: The purpose of each State water team visit is to help State personnel learn as much as possible about MSIS. Why? So that MSIS is maximally useful to this State in meeting the requirements of the SDWA.

2. MSIS is the product of many contributors: While the history of MSIS will be covered in detail today, trainees need to know that the computer system, MSIS is the product of many contributors. It is based on the requirements of the Safe Drinking Water Act and the regulations; its form and requirements have been shaped by several agencies and groups, such as the Office of Water Supply, the Conference of State Sanitary Engineers, EPA regional personnel, and advisory groups.

   The MSIS to be installed in this State has been developed and tested by the SouthWestern Ohio Regional Computer Center, and approved by the Office of Water Supply after an intensive acceptance test at COMNET.

3. MSIS training philosophy: The sole purpose of the water team is to help State personnel, using a variety of methods--teaching course content, answering questions, conducting workshops where trainees practice using input forms and interpreting output reports, giving out self-measurement exercises, and administering pre- and post-tests which measure knowledge gained. The team respects the professional knowledge of trainees, and needs their comments and observations. Questions are encouraged at any time, for the unasked question means later information won't be understood.

4. Courses to be taught: While normally the water team teaches Vols. I - IV, some States have not selected all four courses. See the State Checklist, Section 2.0, for latest information. Tell the trainees what you will be teaching on what day.

5. Material left in State: OWS has authorized the SWORCC water team to leave the following training materials in each State:

   1 slide/cassette package for each of Vols. I-IV, with 2 copies of each accompanying workbook (binders 3,6,9,12).

   1 set of Vols. I - IV for training program (binders 1,2,4,5, 7,8,10,11).
   1 set of camera-ready copy of binders 1-12.

   The DP team will deliver all versions of Vols. V - VI, (binders
   camera ready copy, to the State DP contact. 13,14).

6. Evaluation: Evaluation will be performed in both formal and informal ways. Formal evaluation will be based on a pre- and post-test given for each course; papers will be collected and scored. Informal evaluation will be conducted through self-measurement exercises, which will be completed in class and discussed. The teaching team evaluates itself, relying especially on the observer's analysis of effectiveness of teaching, in daily debriefings.

7. Certificates of completion: Each trainee will receive a certificate of completion if he takes the entire course (a certificate will not be awarded if he drops in for an hour or so), to be presented at the end of the course.

8. Introductions: Introduce each team member, having them stand up. Tell their job for this week and stress that any questions anybody has may be directed to any team member at any time.

9. Summary: Stress again that the team is in this State to serve; it's goal is to help professional personnel learn as much as possible in the time allotted about MSIS, in order to make MSIS as useful as possible to the State.

Warmup

The purpose of the warmup is to set people at ease before training begins; it is also useful after a heavy lunch, or in a hot room to wake everybody up. The MSIS Training Program shows warmups as a daily, morning event, but the team may prefer another frequency. Caution: Warmups need to be selected prior to the day used!

Warmups are useful even if it appears to the team that most trainees know each other. Why? They may know each other only by name, or only in a working relationship. Warmups help the group feel at ease so it will later be confident enough to ask questions (take a risk), disagree with or challenge a teacher (stand apart from the group), or answer one another's questions (demonstrate so much ownership that they are surrogate teachers).

Types of Warmups

Warmups vary from the simple to complex. Some simple ones are discussed here. See the team copy of Davis and McCallon, *Workshops: Planning, conducting, and evaluating*, p. 147-149 for more complex warmups.

1. *"Who are you?"*. Have class form triads (three people). Ask each member of the triad to find out four things about another member which will be shared with the entire group as an introduction. Allow 10 minutes for conversation; then reconvene entire group and have everybody introduce one other person.

2. *"Who are we?"*. Variation of no. 1 in which the triad seeks to find commonalities among itself. Obvious commonalities are that they work for one agency, etc. Have the group find at least one non-work commonality (sports, leisure, volunteer groups, church work) which is shared by the three.

3. *"Silent puzzle"*. Have the class break into small groups of five persons sitting together. Give each person a few pieces of a mini-puzzle. Tell them to work together but silently to put together the puzzle. First group done gets a gold star added to the certificate of completion. Permit 10 minutes to perform.

In summary, the purpose of warmups is to help people feel at ease with one another, and therefore willing to take risks, stand out from the group, and enhance psychological ownership of MSIS. Finally, it is just nicer to work together when one feels confortable and in friendly surroundings.

Evaluation

Evaluation is performed in three basic ways in the MSIS Training Program. First, formal evaluation of trainees is accomplished through administering pre- and post-tests for Vols. I-IV. Pre- and post-tests are collected, scored, and recorded for several later analyses which will be reported to OWS. Pre- and post-tests may be found in Part III, Course Content, of this Instructor's Handbook.

Second, informal self-evaluation is performed by trainees using the exercises that accompany Vols. I-IV. Exercises are always followed by question-and-answer sessions so that trainees can discuss correct responses.

Third, the team itself continuously evaluates its performance through several mechanisms:

1. The observer's main responsibility is to analyze the effectiveness of teaching focusing especially on those areas which the teachers have specified.

2. Daily debriefings which cover trainee performance on pre- and post-tests, degree and type of trainee participation, successes, problems, and recommendations. The daily debriefings are written up in the team log.

3. Post-visit debriefings between the project manager and the team, focusing on "how it went" and recommendations for change that should be implemented in all water training.

These devices all comprise what is called "formulative evaluation" in the educational research literature, meaning that the team constantly improves its product and services.

Philosophically, MSIS relies as little as possible on formal tests for evaluation, preferring self-measurement (exercises; questions and answers) and group analysis and improvement (observer; daily debriefings; team log; post-visit debriefing with project manager). The goal is an effective teaching team that works with trainees and among its members to communicate the maximum amount of knowledge about the Model State Information System.

Forms

There are nine forms designed for more-or-less constant use by the SWORCC water teams. They are:

1. Course modifications
2. Daily agenda
3. Water team materials inventory
4. Course roster
5. Pre- and post-test analysis
6. Observer's class analysis
7. MSIS training sign off form--water team
8. Trip summary--water team
9. Water team recommendations

The forms are intended to capture information when it is fresh; we can't rely on memory to clearly delineate events six States and ten weeks ago.

All data on the forms will be used in the two final reports, one covering the history and management of OWS-77-02; the other covering effectiveness of training.

Course Modifications

(Form 1)

State: ______________ Region: ________________ Team: ________________

Course: ________________ ________________________________

Date: ________________ ________________________________

I. Proposed modifications.

Modification Number	Unit	Modification Proposed	Reason

II. Recommendations for permanent modifications.

Modification Number	Reasons and Proof (Cite proof, such as unusually high number of questions; poor post-test scores, etc.)

DAILY AGENDA

(Form 2)

State: ____________ Region: ________________

Course: ________________________________ Date: ________________

EVENT	TIME
Break	
Lunch	
Break	
Wrap-Up	

Water Team Materials Inventory

(Form 3)

State: ____________ Region: ________________ Packer: __________________

Scheduled Date of Departure on trip: _________________ Date packed: __________________

Date of request: _____________

Name of requestor: ___________________

I. Materials for teaching Vols. I-IV. (Circle binder; add numbers)

Binder Number	Number Needed	Number Packed	Number Used	Number returned to SWORCC
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

II. Materials to be left in State

A. Trainees

Binder No.	Number Needed	Number Packed	Number Used	Number returned to SWORCC
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

B. Materials left with State water contact

Binder No.	Number Needed	Number Packed	Number Used	Number returned to SWORCC
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

III. Student certificates.

Number Needed	Number Packed	Number Used	Number returned to SWORCC

Course Roster
(Form 4)

State: ______________ Region: ______________ Course: ________________

Date taught: ____________________

Name	Agency	Telephone Number

(copy for all trainees; keep master)

Pre- and Post-Test Analysis
(Form 5)

State: ______________ Region: _________________ Course: __________________

Date Course given: ___________________ Observer: ___________________

A. Trainees

1. Number of trainees taking pre-test _________
2. Number of trainees taking post-test _________
3. Useable pairs of tests (basis of following data): _________

B. Trainee Scores.

Trainee ID	Pos. No.	Correct Answer	Pre-test Answer	% Pre-test Correct	Post-test Answer	% Post-test Correct	Net Change

Observer's Class Analysis

(Form 6)

State: ______________ Region: _______________ Date: __________________

Course: ________________________ Observer: ___________________

I. Items requested by Senior or Junior Teacher.

Item	Tally of Occurrences	Implications

II. Communications.

Check the most appropriate point to describe each major event, taken as a whole. Insert events as needed.

Kickoff	0	0	0	0	0
Warmup	0	0	0	0	0
Pre-test	0	0	0	0	0
Unit 1	0	0	0	0	0
Discussions	0	0	0	0	0
Exercises	0	0	0	0	0
Unit 2	0	0	0	0	0
Discussions	0	0	0	0	0
Exercises	0	0	0	0	0
Unit 3	0	0	0	0	0
Discussions	0	0	0	0	0
Exercises	0	0	0	0	0
Post-test	0	0	0	0	0
Course Summary	0	0	0	0	0
	Negative class response (asleep, bored, hostile)	Some class response (some questions, a few listening)	Average class response (most listening, about 1/3 asking questions)	High class response (almost all listening, more than half asking questions)	Constant class response (all listening, asking questions, body alert.)

Additional Notes:

Form 6

III. Course content.

Fill in the following information about the exercises.

Unit	Exercise Form Number	Time class took to fill out	Questions asked by class (major ones)

IV. Problems noted.

List any content, communications, facilities or other problem that should be brought to the team's attention.

V. Suggestions.

List any suggestions which may aid your team.

MSIS Training Sign Off Form

Water Team

(Form 7)

State: ____________ Region: ___________ Senior Teacher: ________________

I. The following courses, which are checked off, have been completed by the SWORCC water team in this State:

- _____Vol. I, MSIS Overview
- _____Vol. II, MSIS Subsystems
- _____Vol. III, Data Entry
- _____Vol. IV, Selection Process

II. The following materials have been turned over to this State by the SWORCC water team

Binder Number	Camera-Ready Copy	1 Duplicate
1		
2		
3		
4		
5		
6		
7		
8		

Slide/Cassette package	1st set*	Camera-ready copy (workbook only)
Vol. I		
Vol. II		
Vol. III		
Vol. IV		

Signed: ______________________________

____
Job Title

____
Agency

____
Date

* 1 copy of slides, cassettes and 2 copies each of binders 11-14.

Trip Summary
Water Team
(Form 8)

State: _________ Region: ______________ Team: ______________________

Dates in State: _____________ ______________________

____

I. State Water Contact.

Name: ______________________________

Job Title: _________________________

Agency: ____________________________

Telephone: _________________________

II. Trainees.

Course	Total Number Attending	Number reported prior to visit
I		
II		
III		
IV		

III. Pre- and Post-Tests.

Course	Number of useable pairs	Average Net Change
I		
II		
III		
IV		

IV. State checklist.

Of _______ required items in the State Checklist, Section 2.0,

_______ were provided upon arrival of the training team.

_______ were provided within the first 2 days.

_______ were provided after 2 days.

_______ were never provided.

V. Successes.

List and briefly discuss not more than 3 high points of this State's Water Division training in MSIS.

VI. Problems.

List and briefly discuss not more than 3 problems.

VII. Other comments.

Water Team Recommendations

(Form 9)

State: ______________ Region: ____________ Team: ____________________

Dates in State: ________________ ______________________________

____

List all recommendations except course modifications (use Form 1) for both water teams to use in remaining States.

Check which categories of recommendations are covered below:

_____ State Checklist

_____ Materials taken to State

_____ Course content

_____ Part II--Team procedures

_____ SWORCC support

_____ UC support

_____ Other: ______________________

_____ Other: ______________________

MODEL STATE INFORMATION SYSTEM

PART III

COURSE CONTENT

FOR

DATA ENTRY

INTRODUCTION:

The purpose of Part III of the handbook is to provide the instructor with everything needed to conduct the training.

Before plunging into the details about what will be taught, two definitions are necessary.

> Course: The teaching content within individual MSIS Training Program volumes.
>
> Unit: A section within the course: Units are logical groups of information divided into manageable periods of time.

For this course, MSIS Overview, there are two required units and one optional unit.

Part III begins with course information. Purpose, summary of course content, and checklist of materials needed are covered.

Next come several sets of information about the two required units. The units are self-contained and complete unto themselves, facilitating variable length breaks between units, change in instructors, and *ad hoc* modifications. Unit information includes:

1. Goals
2. Behavioral objectives and self-measurement techniques
3. The sequence of events, which gives a snapshot of all unit activities
4. Detailed sequence of events: It painstakingly lists in double-page format each teaching topic; methods to teach it; specific slides, charts, etc. needed; and detailed instructor notes that explain the topic's contents. The detailed sequence of events was designed with space between events to allow for changes to be inserted as notes. Such additional material that cannot be inserted within the framework of a unit may be included as the instructor sees fit in the additional unit, Optional Material.

It is expected that, with repeated use, this material will be tailored to the individual style of the instructor and the needs of the particular population undergoing training. It is assumed that, as the instructor becomes more familiar with teaching this course, he will rely mainly on the detailed sequence of events to orchestrate his efforts.

The applicability of this course to each State will depend upon the specific MSIS subsystems selected by that State. It is important, therefore, for the trainer to know beforehand what subsystems were *not* selected and will not be used by the State so that in the presentation references to those subsystems can be eliminated or at least minimized.

It is important to note, though, that although references to the subsystems not selected should be minimized, it must be made clear that the Variances nd Exemptions and Enforcement Actions subsystems do contain a portion of the information required to be reported when dealing with federal reporting requirements. If either or both of those subsystems have not been selected, the information that would normally be reported by that (those) subsystem(s) will have to be prepared manually.

PURPOSE

The purpose of this course is to attain two types of trainee goals: content and non-content. The content goals are knowledge acquisition and skill attainment. The non-content goal is attitude. The four specific goals for this course are:

Knowledge

Trainees will know the four categories of MSIS input forms.

Trainees will be able to correlate input forms with subsequent results.

Skill

Trainees will be able to fill out representative input forms correctly.

Attitude

Trainees will be confident in their basic knowledge of the MSIS input forms and in their ability to manage it effectively.

SUMMARY OF COURSE CONTENT

Following are the units that comprise this course together with the goals, behavioral objectives, time allocation, and instructional techniques for each unit:

Unit 1: Operational Input Forms

Goal: To provide the trainee with the knowledge and ability to complete the two types of input forms required to operate the MSIS

Behavioral Objectives:

1. Identify each of the processing option input forms.
2. Match each given function with the appropriate processing option input forms.
3. Specify the purpose of each field on the table creation

input forms.
4. Choose the best valid entry for each field on the table creation input forms.
5. Predict how frequently each of the table creation input forms will be used.
6. Fill in the correct entries for two processing option input forms.
7. Fill in the correct entries for table creation input forms.

Unit 2: Informational Input Forms

Goal: To provide the trainee with the knowledge and ability to complete the two types of input forms used to enter and maintain information in MSIS

Behavioral Objectives:

1. Identify the four record creation and maintenance forms.
2. List the three basic sections of all record creation and maintenance forms.
3. Fill in the correct entries for record creation and maintenance forms.
4. Identify the five water quality transactions input forms.
5. List the purpose of each of the two types of water quality transactions input forms.
6. Fill in the correct entries for the water quality transactions input forms.

Unit 3: Input Results

Goal: To strengthen the trainee's understanding of both correct and incorrect entries on input forms by illustrating the results of both, and to give trainees additional information as to why particular entries are correct

Behavioral Objectives:

1. Identify the results of specified inputs.
2. Compare input forms with the corresponding results.
3. Explain the desired results and actual results.
4. Identify errors on input forms.
5. Correct errors on input forms.

Unit 4: Optional Material

(To be inserted as required.)

LIST OF MATERIALS NEEDED FOR COURSE

Instructor Materials Required:	Unit 1	Unit 2	Unit 3	Unit 4
Instructor's Handbook (Vol. III)				
35mm slides/notes				
35mm slide projector				
Newsprint and stand				
Felt marker (large)				
Handouts				
Exercise forms				
Discussion questions				
Pre and post evaluation forms				

Participant Materials Required:	Unit 1	Unit 2	Unit 3	Unit 4
Participant Handbook (Vol. III)				
Pencils				
Note Paper				

UNIT 1: OPERATIONAL INPUT FORMS

Goal:

To provide the trainee with the knowledge and ability to complete the two kinds of input forms required to operate the MSIS

Behavioral Objectives:

1. Identify each of the processing option input forms.
   a. Condition: Given a picture
   b. Accuracy: 100%
   c. Method: Written exercise
2. Match each given function with the appropriate processing option input forms.
   a. Condition: Given the tables and functions
   b. Accuracy: 100%
   c. Method: Written exercise
3. Specify the purpose of each field on the table creation input form.
   a. Condition: Given a table creation input form
   b. Accuracy: 75%
   c. Method: Written exercise
4. Choose the best valid entry for each field on the table creation input form.
   a. Condition: Given a choice of three entries
   b. Accuracy: 75%
   c. Method: Written exercise
5. Predict how frequently each of the table creation input forms will be used.
   a. Condition: Given a choice of: often, occasionally, seldom, never
   b. Accuracy: 80%
   c. Method: Written exercise
6. Fill in the correct entries for two processing option input forms.
   a. Condition: Given the required information
   b. Accuracy: 100%
   c. Method: Workshop
7. Fill in the correct entries for table creation input forms.
   a. Condition: Given the required information
   b. Accuracy: 100%
   c. Method: Workshop

VOLUME III, UNIT 1, SEQUENCE OF EVENTS

	TIME	ACTIVITY
	15	Warm-up
	10	Pre-Test
	25	Introduction of Unit: Operational input forms
	30	Slides/lecture: Processing option input forms
	15	Discussion
	15	Exercise
	45	Slides/lecture: Table creation input forms
	45	Workshop on selected processing option and table creation input forms
	25	Exercise
	15	Summary
Total Time	3.5 hours	

NOTES

DETAILED SEQUENCE OF EVENTS

The Detailed Sequence of Events is presented in double-page format in order to provide the instructor with an instant view of what is to be taught, how, and in what sequence. The column headings used are:

Event Number - The numbers under this heading represent the main unit activities and the sequence in which they should be presented.

Time - The numbers represent the planned duration of the event in minutes. These times have been tested and can be used to estimate the level of detail intended for the event.

Support Form Number - Identification symbols of the materials to be used in conjunction with the presentation. These symbols also appear on the reproductions of the material inserted at the end of the unit. From left to right the digits represent the volume, the unit, the type of media, and the sequence of that media within the unit. For example, I1A3 means Volume I, Unit 1, Answer sheet number 3. The media abbreviations are defined as follows:

A - Answer sheet

C - Chart on newsprint

E - Exercise handout

H - Information handout

S - Slide

T - Test

Event & Method - Recommended content and teaching approach: See Part II, p. 8 , of this volume for general additional suggestions.

Instructor Notes - (1) Refers instructor to more detailed material in Part IV, Extracts from MSIS Documents; and (2) presents information which should either be taught or known in order to answer questions. All the material in the Instructor Notes must be mastered prior to teaching this course to feel confident during teaching.

Volume III, Unit 1

Detailed Sequence of Events

Event No.	Time (In min.)	Support Form No.	Event & Method
1	15	III.1.C1	Warmup

Instructor Notes

For detailed discussion of Warmup and Kickoff activities, see Part II.

The intent of those activities is to state clearly what's to be done today, why, and how long it will take. The MSIS training philosophy of aiding States to use MSIS will be emphasized, along with the team's commitment to answering all questions that may arise.

Pass out the Roster of Trainees; have everyone sign in and return it.

Before class begins, put today's agenda on newsprint, using this example:

Today's Agenda	Date	Time
Warmup		
Pre-Test		
Unit 1		
Break		
Unit 1, con't		
Lunch		
Unit 2		
Break		
Unit 2, con't		
Post-Test		
Student Certificates		

Volume III, Unit 1

Detailed Sequence of Events

Event No.	Time (In min.)	Support Form No.	Event & Method
2	10	III.1.T1	**Pre-Test**
3	25	III.T1L	Slides & lecture: Introduction to Unit: Operational Input Forms . Goals . Behavioral objectives . Exercises . Input forms . Agenda: 1) Processing option input forms 2) Table creation input forms 3) Workshop

Instructor Notes

Pass out pre-test for Data Entry; collect the pre-test. Make sure that all trainees who haven't filled out a Background Information Sheet previously do so now.

See p.46 for goal and behavioral objectives.

Exercise sheets will be passed out during the unit; they are for trainee use, will not be graded or collected. Urge the trainees to keep them, as answers will be discussed and may be useful for further reference.

Input Forms

Units 1 and 2 deal with the MSIS input forms. Input forms are a means of communicating with the computer, and are filled out by State water division personnel.

MSIS has over 70 input forms, which can be categorized into two types: operational and informational. The nearly 25 operational input forms, taught in this unit, are those which permit the user to specify how data on PWS's, samples, and analyses is to be processed. The almost 50 informational input forms, taught in Unit 2, permit the user to input data about PWSs, samples, and analyses.

There are two types of operational input forms, processing options and table creations.

The agenda for this training unit is:

1. processing option input forms,
2. table creation input forms, and
3. a workshop.

1. Processing option input forms are used to instruct the computer about the contents of desired reports; they are used frequently.

2. Table creation input forms permit setting up values against which incoming data may be compared; they are used mainly when installing MSIS because while many tables are supplied, others must be created by the State.

3. The workshop portion of this unit will give all trainees a chance to fill out these two types of MSIS input forms, discuss the forms, and answer questions.

Volume III, Unit 1

Detailed Sequence of Events

Event No.	Time (In min.)	Support Form No.	Event & Method
3, con't			Slides & lecture: Introduction to Unit: Operational Input Forms . Data Processing Jargon

Instructor Notes

Data Processing Jargon.

Before beginning with the actual agenda topics, it will be necessary to define some data processing terminology because MSIS is a computer system. Although specialized data processing terminology is avoided, these definitions will help in the understanding of this course.

See the glossary for each of these terms:

Batch System

Computer Program (or programs)

Computer System (or systems)

Data Element

File

Input

Internal

Magnetic disc

Magnetic tape

Output

Random or direct access

Record

Report

Sequential access

Subsystem

Table

Turn around document

Volume III, Unit 1

Detailed Sequence of Events

Event No.	Time (In min.)	Support Form No.	Event & Method
3, con't			Slides & lecture: Introduction to Unit: Operational Input Forms . Summary of MSIS . Required MSIS data elements

Instructor Notes

Summary of MSIS.

The Model State Information System (MSIS) is a batch computer system which maintains records on public water systems and the quality of water they supply. It also performs the function of reporting required information to the federal government as required. MSIS is divided into nine parts called subsystems:

Regulations (REGS)

Public Water System Inventory (PWSI)

Water Quality Compliance (WAQC)

Federal Reporting (FEDR)

MSIS Standard Processing (MSIS)

Variances and Exemptions (VAEX)

Enforcement Actions (ENAC)

Sanitary Survey (SRVY)

Operator and Mailing (OPER)

Required MSIS Data Elements.

The following list of data elements must be filled out if a record is to be accepted by the MSIS programs. The list is given here although it will be referred to later during this course as appropriate.

Detailed Sequence of Events

Event No.	Time (In min.)	Support Form No.	Event & Method
3, con't			Slides & lecture: Introduction to Unit: Operational Input Forms . Required MSIS data elements con't

Instructor Notes

1. Public Water System

For each Public Water System:

- ID (Identification)
- Plant type -- community
  non-community
- Population served
- Water source code -- ground
  surface
  purchased

  -- At least one water source must be identified for each public water system.

2. Water Quality Compliance

For each sample:

- **Public Water System ID**
- Contaminant ID
- Sample types -- regular
  check
  raw, etc.
- Sample date or date of last sample
- Sample analysis method (except for turbidity)
- Lab ID

Additional data elements on individual sample forms:

- Sample time (for bacteria and turbidity)
- Analysis result
- Analysis date
- Sample location (to associate check samples with regular samples)

Detailed Sequence of Events

Event No.	Time (In min.)	Support Form No.	Event & Method
3, con't			Slides & lecture: Introduction to Unit: Operational Input Forms . Required MSIS data elements, con't

Additional data elements on summary sample forms:

- * Mean analysis result
- * Actual number of samples taken
- * Sample period - start date
  end date
- * Flag if check samples taken - federal
  State

For the Lab table:

- * Lab ID
- * Owner type
- * Contaminant group
- * Analysis method

For violations:

- * Public water system ID
- * Regulation level - federal
  State
- * Violation type
- * Violation date
- * Violation ID

3. Variance and Exemption

For each variance or exemption:

- * Variance and exemption ID
- * Type - variance
  exemption

4. Enforcement Actions

For each enforcement action:

- * Enforcement actions ID

Detailed Sequence of Events

Event No.	Time (In min.)	Support Form No.	Event & Method
3, con't			Slides & lecture: Introduction to Unit: Operational Input Forms . Required MSIS data elements, con't

Instructor Notes

5. Federal Reporting

   None

6. Operator and Mailing

   For each operator or mailing addressee:

   * ID (Identification)
   * Type - operator
     other categories
   * Name
   * Street
   * City
   * State
   * Zip

7. Sanitary Survey

   None

8. Regulations

   * Federal regulations

9. Standard Processing

   * Acceptable values for editing in all five tables

Volume III, Unit 1

Detailed Sequence of Events

Event No.	Time (In min.)	Support Form No.	Event & Method
4	30	III.1.S1 III.1.S2 & III.1.S4 III.1.S12	Slides & lecture: Processing option input forms . Definition . Total number . Number taught . General characteristics . Purpose

Instructor Notes

Definitions

While it is correct to state that MSIS has over 70 input forms that may be used, there are only 26 different ones since many of the 70 vary only in the name of the file that they access. Thus, there are only four different processing option input forms, which are taught here, although they exist in about 25 variations.

General Characteristics

There are several similar characteristics of the MSIS input forms.

1. MSIS and the name of the subsystem for which they can be used are in large letters at the top of the form.
2. There usually is a form number in the upper right corner, such as PWSI.110.
3. They consist of boxes to be filled out, with numbers that correspond to the keypunch column.
4. Some of the boxes have pre-printed information in them, especially for Card ID, Card Code, and Transaction Code. We are not concerned with this pre-printed information since the computer programs know how to interpret it correctly.
5. They have some written explanations besides the boxes, to help in filling out the form.
6. The boxes are to be filled with numbers, alphabetics, or left blank.
7. A group of boxes makes up a data element, or data field.
8. All the data elements on the input form make up a record.
9. It may take more than one 80-column keypunch card to represent the entire record.

The four processing option input forms are covered in great detail in Volume IV, Selection Process.

Purpose

The purpose of the processing option input forms (hereafter called Proc-Options) is to permit the user to specify to the MSIS the type of output needed.

Detailed Sequence of Events

Event No.	Time (In min.)	Support Form No.	Event & Method
4, con't			Slides and lecture: Processing option input forms . PROC . SORT

Instructor Notes

PROC

The first ProcOption form is PROC.

The PROC is used to initiate a program or series of programs and for that reason will be used frequently. The common entry on this form is the date. The date represents the date that will be printed on the report. This will usually be the current date. Other options which might be provided for on this form are the dates that the report will cover, whether a special file or report should be created or not, whether to print a complete or condensed report, or no report at all. The "Processing Option for Job" blank at the top is for use by data processing personnel. There is at least one PROC form for each subsystem and about 25 total.

See PROC example, REGS.100.

SORT

The second ProcOption form is SORT, which permits the user to specify the sequence of an output report. There are six forms; one example, WAQC.113, is taught in this course. On WAQC.113 we see that:

1. Positions 1-4 are pre-printed.
2. Positions 5-6, 18-19, 31-32, 44-45, and 57-58 permit entering the sequence of the data elements to be sorted.
3. Positions 7-16 and the other sets of boxes under them are for the mnemonic name of the data element to be sorted; see the Data Element Dictionary for correct mnemonic name.
4. Sort mode may be specified for numeric data elements; ascending is from small numbers to large numbers. For alphabetical data elements, ascending is from A up through Z. In order to get a normal alphabetical report of names, we would specify an ascending mode for the last name and an ascending mode for first names. If any two last names were the same, then the SORT would continue on with the first name and sort alphabetically.

Example WAQC.113 shows that the user wants to sort five data elements, plant type, plant cycle, plant standard capacity, plant maximum production, and plant ID number. The user wants the output report to be organized in this fashion:

Detailed Sequence of Events

Event No.	Time (In min.)	Support Form No.	Event & Method
4, con't			Slides & lecture: Processing option input forms . SORT, con't . Selection Process . SEL 1 . SEL 2

Instructor Notes

I. Plant type -- (community PWS or non-community PWS)
    A. Plant cycle (date within the month upon which compliance cycle begins)
        1. Storage capacity
            a. Maximum production
                1) PWS ID no.

Selection Process

The SEL1 and SEL2 processing option input forms are always used together. Together they allow the user to specify the selection criteria for records to be printed on a report. These forms are used frequently. There are six SEL1 and SEL2 forms; one each is taught here.

SEL1

The SEL1 input form represents thirteen column card entries. Each line is one card. The position numbers under the first line apply to all lines. The "DUP 1-4" on the left is an instruction to the transcriber to duplicate positions 1-4 above on each card or line. "DUP" is used whenever the same information is to be transcribed on several cards.

Look at the example, MSIS.106.

1. Positions 1-4 are pre-printed.
2. Positions 5-14 are filled out with the mnemonic name denoting Region within the State.
3. Positions 15-29 give the value desired for Region, i.e., Region 2 is desired.
4. In positions 30-31, the sequence number is given; it is number one since Region is the first (and only) data element listed.

SEL2

As stated before, SEL1 and SEL2 are always used together. Thus, we see that in Example MSIS.107:

1. positions 1-4 are pre-printed, and
2. The desired logical relationship between the data element and comparative value on SEL1 is equality. We want to select only the records that are from Region 2 for our report. So, we enter "EQ".

Detailed Sequence of Events

Event No.	Time (In min.)	Support Form No.	Event & Method
4, con't			Slides & lecture: Processing option input forms . SEL 2, con't . Comments

Instructor Notes

There are no more fields to fill out on MSIS.107 since we used only one field on SEL1.

Comments

A user can use up to 13 data element mnemonic names on SEL1 so long as he wants an AND condition. Whenever an OR condition is desired, another SEL1 form must be used.

The SEL1 and SEL2 input forms are always used together for each of the subsystems which allow selection of records for output. Only REGS and FEDR do not permit selection because their files are always output in their entirety.

Volume III, Unit 1

Detailed Sequence of Events

Event No.	Time (In min.)	Support Form No.	Event & Method
5	15		Discussion
6	15	III.1.E1 III.1.A1 III.1.E2 III.1.A2	Exercise
7	45	III.1.S2 III.1.S3 & III.1.S13 III.1.S34	Slides & lecture: Table creation input forms . Definition . Purpose . Total number . Total number taught

Instructor Notes

Answer any questions from the class.

Hand out exercise.

Definitions

The second half of the MSIS operational input forms is called table creation input forms.

Tables are files of information for the computer's internal use. The five MSIS tables below have input forms.

1. Error Message Table (EMT)
2. Data Element Table (DET)
3. Code Value Table (CVT)
4. Laboratory Table (LBT)
5. Regulations File (RGF)

Tables generally only have tc be established once; therefore, these input forms will seldom be used after MSIS is installed.

Purpose

The purpose of the table creation input forms (hereafter called the Table Creates) is to enter data elements and their values into the MSIS internal tables. All five Table Creates are taught here.

The first three tables--error message, data element, and code value, are found in the MSIS subsystem; the laboratory table is part of WAQC; and the regulations file (really a table, as explained in Vol. II), is in the REGS subsystem.

Detailed Sequence of Events

Event No.	Time (In min.)	Support Form No.	Event & Method
7, con't			Slides & lecture: Table creation input forms . EMTIF

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Instructor Notes

EMT Input Form

The Error Message Table input form is used to add new kinds of standard error codes and their messages to the Error Message Table. The Error Message Table prepared by SWORCC has three kinds of error messages--Warning, Invalid, and Reject. One of these terms is used as the first entry for every standard error message that has been established; each has its own meaning. A Warning error message signifies that the computer programs will accept the input but the data's value is not within reasonable bounds that have been pre-established. It is used to call attention to unlikely input. An Invalid error message signifies that a particular data element within a record is incorrect and was not accepted; however, the rest of the information that was input was accepted. It is used to flag incorrect non-essential data. A Reject error message signifies that a whole record of information was rejected due to a single error.

Standard errors signify problems in a record but the computer run was completed; they begin with one of the three key words--Warning, Invalid, or Reject--and can occur on any MSIS input form EXCEPT processing options. In distinction, processing option input form errors result in an aborted computer run; no. processing occurred. The EMT contains only standard error messages.

See example MSIS.102.

1. Note that in line one, the first two fields, card ID and file ID, are pre-printed indicating that the information entered cannot change. This makes sense since there is only one EMT. We also note that two lines of data entry information occupy positions one through 65 and then repeat with the next two lines. The keypunch operator would therefore enter the first 65 positions on one card and then start a new card, "dupeing" the first three positions as instructed by the form.
2. The error code always begins with a zero followed by a two-digit number.
3. The meaning of the code is shown in the error message fields.
4. If the word "Invalid" appears, it indicates that the data element involved with the error was not accepted but that all other record input was accepted. Invalid's start with 4--.
5. If the error message is preceded by the word "Reject", it indicates that the computer rejected the entire record of information that was being input. Reject's start with 0--.
6. If the word "Warning" precedes the message it means the computer has accepted the data but does not feel the data is within acceptable bounds. Warning error messages, therefore, warn of invalid input. Warning's begin with 1--.

Detailed Sequence of Events

Event No.	Time (In min.)	Support Form No.	Event & Method
7, cont			Slides & lecture: Table Creation input forms . EMTIF, con't . DETIF

Instructor Notes

Remember that the EMT was supplied by SWORCC; a State would fill out this form infrequently, only to add new error message codes and messages. This form allows for two error codes to be input per 80 column card.

Any error code that is used in more than one subsystem need only be input once.

DET Input Form

The Data Element Table has already been prepared by SWORCC, but the data element table input form is provided for input when the programs are changed and new data elements are provided for in the program. It will be used infrequently.

See example MSIS.104.

1. This form allows for one data element entry per card as indicated by the "dupe" instructions to the keypunch operator on field one of line two through eleven.
2. Field two, the file ID, identifies the file which uses the data element code value during processing. Since a file ID is assigned, we know that a separate entry must be made to enter the information on each file using the information. Note that here the information is not pre-printed since more than one file in the Standard Processing Subsystem uses the information. File ID is found in the Data Entry Instructions.
3. Data element catalog number represents a unique three-digit number which has been added to the Data Element Dictionary.
4. The following four fields describe for the computer the new data element as it comes from the keypunch card, and where it needs to appear on the file identified.

   -Positions 7-8 and 9-12 identify the starting position of the data element on the keypunch card, with the corresponding starting position on the computer file.

   -Positions 13-14, data element length, tells the number of positions used on the record layout for this file, and is obtained from the appropriate record.

   -Positions 15-16 tell the computer the number of card columns used on the keypunch card.
5. The new data element mnemonic name is created by the State and has been added to the Data Element Dictionary.
6. The last field gives the user an option as to whether or not changes to this data element will be kept on the appropriate history file.

Detailed Sequence of Events

Event No.	Time (In Min.)	Support Form No.	Event & Method
7, con't			Slides & lecture: Table creation input forms . CVTIF . LBTIF

Instructor Notes

CVT Input Form

The Code Value Table input form is used to enter the acceptable value or values of 27 possible data elements and their corresponding descriptions in the Code Value Table. (See Part IV for list of CVT data elements). This table, too has already been partly established, but certain of the codes must be established by the State. See example MSIS.103.

1. Only the card ID is pre-punched. One line is used for one keypunch card.
2. The second field is the file ID. A particular file using the data element is entered here. If more than one file is concerned, a separate and complete entry must be made for each.
3. Field three is again the catalog number and again, it is obtained from the Data Element Dictionary.
4. Field four, positions 7-15, contains one acceptable value for the data element. This field must be filled out for every single acceptable value for this data element. For example, a State using a county code must input each county code on Code Value Table input forms. As you can see, this form is used hundreds of times when setting up the State's own code values. Values must be left-justified.
5. Field five refers to the entry in field three, and represents the number of positions which the data element occupies. As an example, if the code is 3000, this field would contain a 4.
6. This last field explains the valid code for the data element.

LBT Input Form

The Laboratory Table input form allows the State to enter those laboratories it has certified together with the expiration date of such certification, the analyses the laboratory is certified to perform, and the analysis techniques it may use.

See examples WAQC.101 and WAQC.102.

This form represents one punched card. It has one pre-printed field--card code L1 in the last two keypunch positions--79 and 80. The Laboratory Table input form has two pages.

1. Page one shows that when the State certifies a lab to analyze water samples, it assigns the lab an ID number.
2. Position six is pre-printed.

Detailed Sequence of Events

Event No.	Time (In min.)	Support Form No.	Event & Method
7,con't			Slides & lecture: Table creation input forms . LBTIF, con't

Instructor Notes

3. Position 7 is the owner type. Acceptable values were determined by the State, and described in the CVT.

4. The lab name is entered in field four, line one, left-justified, and the certification expiration date on line two.

5. On the second page, the first field repeats the laboratory ID, obviously, to insure that the information on page 2 is entered for the appropriate laboratory.

6. Field two allows us to enter a contaminant group code. These are described directly below these two fields in the key.

7. The remainder of this form allows the listing of up to 24 various analysis methods for which the lab is certified.

MSIS required data elements for the Lab Table are:

- Lab ID
- Owner type
- Contaminant group
- Analysis method

Detailed Sequence of Events

Event No.	Time (In min.)	Support Form No.	Event & Method
7, con't			Slides & lecture: Table Creation input forms . REGS input forms --Turbidity contaminant input forms

Instructor Notes

REGS Input Forms

The Regulations File data for the federal regulations on water quality is provided complete by SWORCC with the rest of the MSIS computer system. The Regulations File input forms are provided so that the States may enter their own regulations, which are at least as stringent as the federal ones. While there are a total of eight Regulations File input forms, five specify the maximum contaminant level and the required sampling frequency for each contaminant. The remaining three Regulations File input forms are special purpose forms.

--Turbidity Contaminant Input Form

The turbidity contaminant input form will be studied in detail as an example of the five REGS input forms which specify maximum contaminant level.

See REGS.102 example.

1. Notice that in line one, both the card ID and contaminant name are preprinted, indicating that this form is used for only the turbidity contaminant. Also, only one keypunch card is required.
2. The second field, positions 5-6, permits the user to differentiate between federal and State regulations and between primary and secondary regulations. The first block of the two-block field is for the regulation entry and the second block is for the level entry. As an example, a federal secondary regulation would be entered as "FS" and a State primary regulation as "SP". If more than one condition exists, a separate input must be made for each condition. MSIS accepts only "FP" records.
3. Positions 16-17 and 18-19 deal with the maximum contaminant level for the computational technique used. Two fields were provided since the MCL established varies with the technique used. As indicated, the first field of line 2 is for the monthly average computation, while the second field is for the consecutive sampling computation.
4. The third field specifies the number of consecutive samples required for a valid entry in field two.
5. Positions 22-27 make provision for an effective date of the regulation for the turbidity contaminant. This date is specified in the federal regulations as June 24, 1977.
6. Position 28 allows the State to indicate a simple choice of "yes" or "no" as to whether the turbidity monitoring requirements will apply to all water sources. This provision is necessary since the federal regulations require the monitoring of the turbidity contaminant in

Detailed Sequence of Events

Event No.	Time (In min.)	Support Form No.	Event & Method
7, con't			Slides & lecture: Table creation input forms . REGS input forms, con't --Turbidity, con't --Chemical contaminant --Bacti contaminant --Gross alpha --Gross beta

only those public water systems whose source of water in whole or in part is surface water; that is, rivers, lakes, and so forth.

7. Position 29 again is a simple "yes"-"no" choice by the State. MSIS provides the option as to whether to include the repeat samples in the average.

8. Positions 30-32 and 33-35 allow the user to indicate the required frequency of monitoring for community and non-community PWS's in days per year. In the case of a community PWS, the federal regulations require a daily monitoring. The regulations will be applicable to non-community PWS's on June 24, 1979.

9. The last field, positions 36-37, controls the number of minutes that may lapse before the PWS must initiate check sampling as a result of an MCL violation. The example indicates 60 minutes.

--Chemical Contaminant Input Form

This form will be used for the ten organic and six inorganic chemical contaminants.

--Bacteriological Contaminant Input Form

Since there is only one bacteriological contaminant, the card ID and contaminant name can be pre-printed. You will find the ID on line one, field one, and the name, "COLIFORM", on line one, field three.

--Gross Alpha Radionuclide Contaminant Input Form

This input form also applies to a single contaminant whose card ID is pre-printed on line one, field one, and name on line one, field three.

--Gross Beta Radionuclide Contaminant Input Form

Our last Regulations File input form is for the gross beta radionuclide contaminant.

Of the eight Regulations File input forms mentioned earlier, there remain the three special purpose input forms.

Detailed Sequence of Events

Event No.	Time (In min.)	Support Form No.	Event & Method
7, con't			Slides & lecture: Table creation input forms . REGS input forms, con't --Population table for bacti sampling --Fluoride MCL Table input form --Major Beta Emitter Table input form . Required MSIS data element

Instructor Notes

Population Table for Bacti Sampling

The Population Table for bacteriological sampling input form establishes the minimum samples per month for PWS's falling within a range established by the upper and lower **population limit.** Examine example REGS.103.

1. Field one is the pre-printed card ID, field two the regulation type (federal or State) and level (primary or secondary). The "FP" entry here is for federal, primary regulation. Field three is the card ID.
2. Positions 8-16 establish the lower limit of the range.
3. Positions 17-25 establish the upper limit of the range.
4. Positions 26-28 establish the samples per month for PWS's falling within the population range established. Here it is 35 samples per month for PWS's with populations of 28,001 to 33,000.

Fluoride MCL Table Input Form

As you see, this form also establishes additional criteria for a contaminant. Here the contaminant is fluoride, not bacteria; the range is temperature, not population; and the restriction is on MCL, not on samples per month.

Major Beta Emitter Table Input Form

The Major Beta Emitter Table input form simply specifies particular beta emitters which must be monitored for within the gross beta radionuclide category.

Required MSIS data elements on table creation input forms

The entire list of required MSIS data elements was given at the beginning of this unit. Now that all table creation input forms have been covered, we can relate those forms to the required MSIS data elements.

Error Message Table -- None
Data Element Table -- None
Code Value Table -- 27 data elements (see Part IV, required code values)
Laboratory Table -- Lab ID, owner type, contaminant group, analysis method
REGS File -- Federal regulations (supplied by SWORCC)

Detailed Sequence of Events

Event No.	Time (In min.)	Support Form No.	Event & Method
8	45		Workshop: Selected processing option and table creation input forms
9	25	III.1.E3 III.1.A3 III.1.E4 III.1.A4 III.1.E5 III.1.A5 III.1.E6 III.1.A6	Exercises
10	15		Summary . Purpose of input forms . Define operational input forms . Review processing option input forms and their frequency . Review table creation input forms and their frequency

Instructor Notes

Workshop

Period is to be devoted to having trainees fill out forms, answering their questions as they go along, generally practicing data entry, and completing exercises.

Trainees are to use the standard test data that will permit remote job entry to the COMNET test data files. In the event that COMNET is not available, still use the standard test data that match the completed output reports covered in Unit 3. The most important thing is to provide the trainees with standard test data that will match either the COMNET produced reports or those provided here.

The instructor will structure the workshop as best fits the needs of the group.

Hand out exercises. Discuss answers.

Summarize this complex unit and answer all questions.

UNIT 2: INFORMATIONAL INPUT FORMS

Goal:

To provide the trainee with the knowledge and ability to complete the two types of input forms used to enter and maintain information in MSIS.

Behavioral Objectives:

1. Identify the four record creation and maintenance forms.
   a. Condition: Given a picture
   b. Accuracy: 100%
   c. Method: Written exercise
2. List the three basic sections of all record creation and maintenance forms.
   a. Condition: Given a picture
   b. Accuracy: 100%
   c. Method: Written exercise
3. Fill in the correct entries for record creation and maintenance forms.
   a. Condition: Given the required information
   b. Accuracy: 80%
   c. Method: Workshop
4. Identify the five water quality transactions input forms.
   a. Condition: Given a picture
   b. Accuracy: 100%
   c. Method: Written exercise
5. List the purpose of each of the two types of water quality transactions input forms.
   a. Condition: Given a picture
   b. Accuracy: 100%
   c. Method: Written exercise
6. Fill in the correct entries for the water quality transactions input forms.
   a. Condition: Given the required information
   b. Accuracy: 50%
   c. Method: Workshop

VOLUME III, UNIT 2, SEQUENCE OF EVENTS

TIME	ACTIVITY
10	Introduction of Unit: Informational Input Forms
30	Slides/lecture: Record creation and maintenance input forms
40	Workshop
10	Exercise
45	Slides/lecture: Water quality transactions input forms
30	Workshop
10	Exercise
5	Summary
Total Time 3 hours	

Volume III, Unit 2

Detailed Sequence of Events

Event No.	Time (In min.)	Support Form No.	Event & Method
1	10		Introduction to Unit: . Goal . Behavioral objectives . Agenda: 1) Record creation and maintenance input forms 2) Workshop 3) Water quality transactions input forms 4) Workshop

Instructor Notes

See the goal and behavioral objectives on p. 90 .

Agenda

The agenda for this unit is different from Unit 1 in that there are two workshops which follow immediately after each of the two categories of informational input forms. The agenda is:

1. Record creation and maintenance input forms
2. Workshop
3. Water quality transactions input forms
4. Workshop

Recall that there are about 9 informational input forms in MSIS; they enter PWS, sample, and analysis data to specified files. Again remember that the Data Entry Instructions provide detailed help when filling out any MSIS input form.

Volume III, Unit 2

Detailed Sequence of Events

Event No.	Time (In min.)	Support Form No.	Event & Method
2	30	III.2.S1 III.2.S14	Slides & lecture: Record creation and maintenance input forms . Purpose . PWSI input forms (3)

Instructor Notes

Purpose

The record creation and maintenance input forms, as a group, are used to enter information concerning the States' public water systems into the computer files. Since this type information is applicable to all subsystems maintaining PWS information, we will find the record creation and maintenance input forms used by PWSI, WAQC, VAEX, ENAC, and OPER.

There are a total of 13 forms in this category. We will now look briefly at each of the first 12 forms, and study the thirteenth one--Operator and Mailing Input Form--in some detail.

Public Water System Inventory Input Forms -- PWSI.400 & PWSI.401

This form has two parts. Part one is shown on the slide. Both are used to input information to the public water file which maintains information on all PWS data. Nearly 100 data elements may be entered on this form. The form is used (1) whenever a PWS was not on the National Inventory File and converted into the PWS and (2) to correct errors. A separate form is used to delete records from the PWF.

MSIS required data elements are:

For each public water system:

* ID (Identification)
* Plant type - community
  non-community
* Population served
* Water source code - ground
  surface
  purchased
  - At least one water source must be identified for each public water system.

Detailed Sequence of Events

Event No.	Time (In min.)	Support Form No.	Event & Method
2, con't			Slides & lecture: Record creation & maintenance input forms . VAEX input forms (3) . ENAC input forms (4)

Instructor Notes

Variances and Exemptions Input Forms

This group of three forms is used to input information to VAEX when an exemption or a variance is granted to a public water system. VAEX.100, provides a card code of 0.0, for a record creation and a current status of the PWS to whom the variance or exemption was granted--see the eight lines at the bottom of the form headed, "Case Abstract".

VAEX.101 is used to report the progress of the PWS in meeting the full regulation requirements. Such progress is reported in lines two through five, field positions 16-45.

VAEX.107, the last of the three forms used by VAEX, permits entering an abstract concerning the case. It may also be used to delete a record.

MSIS required data elements are:

For each variance or exemption:

- Variance and exemption ID
- Type - variance
  exemption

Enforcement Actions Input Forms

There are four enforcement actions input forms. When a public water system incurs a violation, the State is required to take action to insure that the violation is corrected. The State uses ENAC.101 to record its efforts on the ENAC file. Notice the initial record creation in line one, field three.

ENAC.104 is for milestone information; that is, progress reports.

ENAC.103 allows the State to record in abstract form its actions to clear the violation. Obviously, the State can choose what it enters and what it doesn't.

The last form, ENAC.102, is used to delete the violation after the PWS has fulfilled all regulatory requirements.

MSIS required data elements are:

For each enforcement action:

- Enforcement actions ID

Volume III, Unit 2

Detailed Sequence of Events

Event No.	Time (In min.)	Support Form No.	Event & Method
2, con't			Slides & lecture: Record creation and maintenance input forms . WAQC input forms (2) . OPER input forms (1)

WAQC Input Forms

There are two forms, WAQC.136 and WAQC.137, which are used to enter special violations data onto the Violations File (VIF). While the VIF normally is automatically updated with MCL and sampling violations, it is possible to add those two types of violations directly to the VIF as well as other violation types, such as reporting. WAQC.137 also provides the ability to delete a record from the VIF.

MSIS required data elements are:

For violations:

- * Public water system ID
- * Regulation level - federal
  State
- * Violation type
- * Violation date
- * Violation ID

Operator and Mailing Record Creation and Maintenance Input Form

The OPER input form is used to enter and update names and addresses of PWS operators and others frequently contacted by the States. Only one form is used, and it will be examined in detail.

In reviewing OPER.100, there are several things of particular note. First, that if we desire to create a new record, we complete line 1; second, if we desire to update an existing record, we omit the first and last data entry lines but complete the remainder of the form as required; third, if we desire to delete information from a record currently stored on the file, we complete the last line.

1. Note that field two is pre-printed in each data entry line. The first code of 00 is record creation. The next three (01, 02, & 03) identify address information. The last one, 99, is for record deletion.
2. The first field, positions 1-5, contains the State-assigned operator and mailing identification number. Note the entry is right-justified.
3. The third field, position 8, establishes a new record if a "Y" is entered. As per instructions on the form, if no new record is desired, the entry line is left blank.
4. Note that this last line on this form is quite similar to line one, except that it is used to delete a record.
5. On line two, O & M type in position 8 follows the standard O & M

Volume III, Unit 2

Detailed Sequence of Events

Event No.	Time (In min.)	Support Form No.	Event & Method
2, con't			Slides & lecture: Record creation and maintenance input forms . OPER input forms, con't . Review

identification number and pre-printed card code.

6. The next few lines are for a complete address and phone number. The name and street address are left-justified.
7. On line six (card code 03), the State-assigned certificate number for the PWS operator, PWS ID, operator class, and certificate renewal date follow. States may not grant permanent operator certificates.

The MSIS required data elements are:

For each operator or mailing addressee:

* ID (Identification)
* Type - operator
  other categories
* Name
* Street
* City
* State
* Zip

Review.

Now that we've looked at 13 record creation and maintenance forms, let's review them:

. PWSI -- used to enter more than 100 data elements and delete records --3 forms
. VAEX -- used to enter or delete records about a variance or exemption-- 3 forms
. ENAC -- used to enter or delete records about enforcement actions--4 forms
. WAQC -- to enter or delete records from the violations file -- 2 forms
. OPER -- to enter or delete records about operators and others -- 1 form

Notice that all the record creation and maintenance forms permit entering AND deleting records. MSIS required data elements occur in all of the five subsystems' record creation and maintenance forms.

Volume III, Unit 2

Detailed Sequence of Events

Event No.	Time (In min.)	Support Form No.	Event & Method
3	40		Workshop: Record creation and maintenance input forms
4	10	III.2.E1 III.2.A1	Exercise

Instructor Notes

A workshop on selected record creation and maintenance forms now follows. Pass out forms, the test data set, and have the group work together to fill them out. Answer all questions as they come up.

Pass out the exercise.

Volume III, Unit 2

Detailed Sequence of Events

Event No.	Time (In min.)	Support Form No.	Event & Method
5	45	III.2.S1 & III.2.S15 III.2.S21	Slides & lecture: Water quality transactions input forms . Purpose . Entering water quality data

Instructor Notes

Purpose

This is the last of the four categories of input forms. Up until this point, we have discussed processing options, table creation, and record creation and maintenance input forms. Although the last discussed, the water quality transaction input forms are undoubtedly the most important--they are the workhorse forms of the MSIS. These forms may be used hundreds of times every year to add or delete PWS water quality information. Five input forms are found in this category.

The water quality transactions input forms do two things: (1) enter data about a PWS's water quality on the Periodic Sample File (PSF), and (2) delete erroneous records from the PSF and from its daughter file, the Sample Analysis File (SAF). Recall that the SAF is automatically created from the PSF.

Entering Water Quality Data

Three input forms enter data to the PSF:

- Bacteriological or turbidity analysis
- Bacteriological or turbidity summary analysis
- and . Chemical or radiological analysis, which is presented in detail.

Note that one form may be used for one of two contaminants--for example, bacteriological or turbidity analysis--because the data required is very similar for each.

These three forms are called turnaround documents, meaning that the computer has already printed some information on them but more information must be filled out by the PWS, the laboratory, or State water division personnel. Turnaround documents save time because only new information need be filled out by hand.

Detailed Sequence of Events

Event No.	Time (In min.)	Support Form No.	Event & Method
5, con't			Slides & lecture: Water quality transactions input forms . Bacti or turbidity analysis . Bacti or turbidity summary analysis . Chemical or radiological analysis

Instructor Notes

Bacti or Turbidity Analysis (WAQC.107)

Note that the two bacti turbidity analysis forms permit either individual sample data or summary data to be input, as is allowed in the regulations. The basic information needed here concerns (1) conditions under which the sample was taken, (2) PWS ID, (3) contaminant ID, and (4) analysis results. Ten samples may be entered on one form.

Bacti or Turbidity Summary Analysis (WAQC.108)

Again, PWS ID, contaminant ID are required, along with summarized analysis results, beginning and end dates of the sampling period.

Chemical or Radiological Analysis (WAQC.101), a turnaround document

Here is the third and last form used to enter data on the PSF. It enters analysis information concerning either a chemical or radiological contaminant. Note that the form has spaces for entering keypunch information as well as blank spaces for entering hand-written or typed information.

This form is used as a turnaround document, with some information entered by the computer, some by the PWS and some by the lab. The completed form is then returned to the State for input to the WAQC subsystem.

Starting the process, the WAQC subsystem completes the PWS ID, name and address, and contaminant ID and contaminant name. The form is then forwarded to the PWS.

Next, the PWS completes the last data entry line. Field one is the location code and name; field two the date the sample was collected. Field three is a key code for sample type; field four is the time the sample was collected, in hours and minutes (right-justified). Field five is the lab ID and field 6, the lab name. The PWS then forwards the form to the lab.

Third, the lab performs the analysis and completes the rest of the form.

Starting in positions 14-16, the first field is the method used to analyze the sample. This is followed by the analysis results. Note that position 21 is headed "DECIMALS". This refers to the number of decimals in the field position 17-20. As an example, 4.010 would be three decimals and the number three would be entered in position 17.

Field four is the common, six-position, right-justified date. The next

Detailed Sequence of Events

Event No.	Time (In min.)	Support Form No.	Event & Method
5, con't			Slides & lecture: Water quality transactions input forms . Chemical or radiological analysis

column heading, "DUP 28-46 (BELOW)", is an instruction to the keypunch operator to enter the last data entry line, positions 28-46, on each card punched. This is certainly needed, since it contains the lab information.

The last column here is not for data entry since no card positions are shown.

The MSIS required data elements are:

For each sample:

* Public water system ID
* Contaminant ID
* Sample type - regular
  check
  raw, etc.
* Sample date or date of last sample
* Sample analysis method (except for turbidity)
* Lab ID

Additional data elements on individual sample forms:

* Sample time (for bacti and turbidity)
* Analysis result
* Analysis date
* Sample location (to associate check samples with regular samples)

Additional data elements on summary sample forms:

* Mean analysis result
* Actual number of samples taken
* Sample period - start date
  end date
* Flag if check samples taken - federal
  State
* Number of check samples taken
* Number of samples in violation - federal
  State

Event No.	Time (In min.)	Support Form No.	Event & Method
5, con't			Slides & lecture: Water quality transactions input forms . Correcting errors on the PSF . Sample deletion transactions (2)

Instructor Notes

Error Correction

Having entered PWS data on the PSF, suppose that our input report shows us an error. It is necessary to correct the error on the PSF.

We saw earlier that most of the record creation and maintenance forms included a data entry line for record deletion. Two files, however--PWF and its daughter, SHF--contain such critical data used to determine violations that a special procedure was adopted to guard against unnecessary file access.

That special procedure is a two-step process. In step one, a deletion input form is filled out; it will erase all of the record containing errors. In step two, a new, correct record is input using the appropriate water quality transaction input form.

Sample deletion transactions (WAQC.105 and WAQC.110)

There are two sample deletion transactions input forms. One deletes erroneous records from the PSF; the other does the same from the SAF, which is automatically created from the PSF. We will examine WAQC.105, deletions to the PSF, in detail.

While Unit 3 deals with reports in detail, we must note here that one finds errors in MSIS computer records when reading printed reports which contain or flag the error. Thus, the prior step to filling out either of the two sample deletion transactions is having examined reports.

The only difference in the forms is their name and form number. Let's note first that this form contains 10 lines of keypunch information for 10 cards, and that all lines are identical.

1. The first line in each line is for the PWS ID.
2. This is followed by the card code, pre-printed--01 for record deletion.
3. Contaminant ID goes into positions 10-13. See the Code Value Table for the correct contaminant ID number. Notice that the contaminant name, which comes next, is not entered on the keypunch card and is not used by the computer.
4. Positions 14-16 are for the code for the analysis method, also found in the Code Value Table.
5. The sample key, positions 17-26, are taken from the error report. Some error reports have a column called sample key; copy it here. Others have a record key; use the last 11 positions, omitting the final position.

Detailed Sequence of Events

Event No.	Time (In min.)	Support Form No.	Event & Method
5, con't			Slides & lecture: Water quality transactions input forms Sample deletion transactions (2), con't

Instructor Notes

In summary, this form and its identical companion are used to delete information from the Periodic Sample File and the Sample Analysis File, both of which are maintained by the Water Quality Compliance subsystem.

Since the card contains provisions for 10 identical entries, 10 separate deletions could be made with one input form.

Detailed Sequence of Events

Event No.	Time (In min.)	Support Form No.	Event & Method
6	30		Workshop on selected water quality transactions input forms
7	10	III.2.E2 III.2.A2	**Exercise**
8	5		Summary

Instructor Notes

The purpose of the workshop is to let trainees get practice in filling out forms, answering their questions as they work, and pointing out important features of data entry.

Use the standard test data so that either (1) the data may be entered RJE to COMNET at night, with output results to be examined in Unit 3, or if COMNET is unavailable, (2) Unit 3 will use previously prepared output results that match the standard test data.

Hand out the exercise.

Stress that while MSIS has about 75 input forms, many of them vary only in the file they may access. The number of truly differing input forms is really 26, a more manageable number.

Remind trainees that the volume, Data Entry Instructions, will be useful when filling out forms.

Finally, draw their attention to the list of MSIS required data elements, for they occur on all but the processing option input forms; when an MSIS required data element is missing, the input record is not accepted and a REJECT message appears on the error report.

UNIT 3: INPUT RESULTS

Goal:

To strengthen the trainee's understanding of both correct and incorrect entries on input forms by illustrating the results of both, and to give trainees additional information as to why particular entries are correct.

Behavioral Objectives:

1. Identify the results of specified inputs.
    a. Condition: Given input forms and reports
    b. Accuracy: 100%
    c. Method: Written exercise
2. Compare input forms with the corresponding results.
    a. Condition: Given input forms and reports
    b. Accuracy:
    c. Method: Workshop
3. Identify errors on specified input forms.
    a. Condition: Given an input form and error report
    b. Accuracy: 100%
    c. Method: Workshop
4. Correct errors on specified input forms.
    a. Condition: Given an input form and error report
    b. Accuracy: 100%
    c. Method: Workshop

SEQUENCE OF EVENTS: VOLUME III, UNIT 3

TIME	ACTIVITY
10	Introduction of Unit: Input
60	Workshop
10	Post-Test
10	Student Certificates

Total Time 1.5 hours

Volume III, Unit 3

Detailed Sequence of Events

Event No.	Time (In min.)	Support Form No.	Event & Method
1	10		Introduction to Unit . Goal . Behavioral objectives . Agenda
2	60		. Workshop on input results

If no optional unit, proceed to event 3.

Event No.	Time (In min.)	Support Form No.	Event & Method
3	10	III.3.T1	Post-Test
4	10		Student Certificates

Instructor Notes

See the goals and behavioral objectives on p. 116 . The agenda for this unit is a workshop on the results of creating input forms.

It is up to the instructor to structure this workshop. The purpose of the workshop is to provide trainees with practical experience in the results of both correct and incorrect entries on input forms, hence the name "input results."

If COMNET is available for training purposes, the input results should be the result of actual test data run against the COMNET test data base. If it is not possible to use COMNET, then the instructor must have provided a small manual test data base which trainees use to fill out forms and which is also used in the standard output reports used for this training.

It is critical that the instructor answer all trainee questions about input forms they filled out and the consequences of their data entry.

Hand out post-tests. Collect when all trainees have finished.

During the lunch break, have completed student certificates with student name clearly printed, and signed by the Senior Teacher with today's date. Call each person by name and either call them to the front of the room, or give out directly to each. DO NOT PASS THEM OUT IN A GROUP; give to each individual.

UNIT 4: OPTIONAL MATERIAL

(To be inserted as required).

REPRODUCTIONS OF TESTS, MEDIA, EXERCISES, AND ANSWERS

31B1
(1-4)

MSIS BACKGROUND INFORMATION

Name:______________________________ (5) (30)   Postal Code:____ (31-32)   Date: _/_/_/_/_/_ Month Day Year (33-38)

1. Circle which MSIS training courses you have already taken:

   (39) a. None. Go to question 2.

   (40) b. MSIS Overview

   (41) c. MSIS Subsystems

   (42) d. Data Entry

2. Have you filled out one of these MSIS Background Information forms before?

   (43) ___ Yes. Thank you for the data; go to the Pre-test.

   (44) ___ No. Go to question 3.

3. Age: ____ years (45)

4. Sex: ___M (46)   ___F (47)

5. What was the highest level of schooling you attained? (circle one)

9 10 11 12	13 14 15 16	M.A./M.S.	Ph.D.
High School (48)	College (49)	(50)	(51)

   Other (please specify) ______________________________ (52-76)

6. Specify your major where appropriate:

________	________	________	________
College (77)	M.A./M.S. (78)	Ph.D. (79)	Other (80)

31B2
(1-4)

7. What is your job title?______________________________
(5) (30)

8. How long have you held your present position?___years ___ months
(31) (32)

9. How many years experience do you have in the general area of your present job position?

____
(33) (34)

10. Have you had training related to your present position in the past two years (other than the present MSIS training)?

(35)___No. Go to question 11.

(36)___Yes. Please answer the following:

a. What was the subject?______________________________
(37) (51)

b. What was the length of training?____________________
(52) (55)

c. Who offered the training?__________________________
(56) (65)

d. Rate your knowledge resulting from the training.

(66) None (67) A little (68) Some (69) Quite a bit

(70) Great deal

11. Please rate your current knowledge level of data processing (circle the appropriate answer).

(71) None (72) A little (73) Some (74) Quite a bit

(75) Great deal

12. Please rate your current knowledge level of the Federal Regulations pertaining to Safe Drinking Water Act of 1974 (circle the appropriate answer).

(76) None (77) A little (78) Some (79) Quite a bit

(80) Great deal

Thank you for your cooperation.

III.1.T1
31T1
(1-4)

PRE-TEST

DATA ENTRY

Name:______________________ (5-30)   Postal Code ____ (31-2)   Date ___/___/___ Month Day Year (33-8)

1. Match the following functions with their appropriate subsystems:

Subsystem

a. Regulations
b. Enforcement Actions
c. Water Quality Compliance
d. Variances & Exemptions
e. Standard Processing

Function

(39) ____Maintains information on PWS's that have special conditions
(40) ____Does the checking on the analyses of water quality
(41) ____Maintains information on the activities ensuring compliance
(42) ____Gives the computer information to determine violations
(43) ____Performs common functions among subsystems

2. Match the types of input forms with their function:

Form

a. Processing option
b. Table creation
c. Record creation & maintenance
d. Water quality transactions

Function

(44) ____Enters PWS-related data to files
(45) ____Enters data to MSIS tables
(46) ____Enters sample and analysis data
(47) ____Enables the user to specify a needed PWS listing
(48) ____Enables the user to specify needed reports

3. Circle the abbreviations for the 5 subsystems which have Record creation and maintenance input forms:

(49) a. BIPS
(50) b. WAQC
(51) c. OPER
(52) d. LIMT
(53) e. FEDR
(54) f. VAEX
(55) g. REGS
(56) h. ENAC
(57) i. SRVY
(58) j. MSIS
(59) k. PWSI
(60) l. QUAL

4. Circle T (True) or F (False) for each of the following statements:

T F (61) "SORT" is a processing option input form used to specify desired sequence of records for output.

T F (62) "SEL2" is a processing option input form used to initiate a program.

T F (63) "SEL1" is the processing option input form used to select records from MSIS files.

T F (64) A program run cannot be initiated without using a "PROC" form.

T F (65) The Laboratory input form is seldom used because the laboratory table is supplied by MSIS.

T F (66) A State used the Code Value Table input form to enter its own acceptable data element values.

T F (67) The Data Element Table input form is used to enter a detailed description of information about a data element.

T F (68) A Record Creation and Maintenance input form is used to change PWS data.

T F (69) Water Quality Transactions input forms are used either to add or to delete sample and analysis data.

T F (70) The records on the Periodic Sample File and Sample Analysis File can be changed without deleting the entire record.

5. The Data Element Table input form cannot be used to identify which of the following:

(71) a. Which file used in
(72) b. New error code
(73) c. Name for field
(74) d. New catalogue number

6. Check the Water Quality Transaction input forms:

(75) a. ____Bacteriological or Turbidity Analysis
(76) b. ____Inorganic Chemical Contaminant
(77) c. ____Chemical or Radiological Analysis
(78) d. ____Sample Deletion Transactions
(79) e. ____Physical Contaminant Summary

7. Rate your current level of knowledge about MSIS: (Circle one)

(80)None (81)A little (82)Some (83)Quite a bit (84)A great deal

III.1.C1

Today's Agenda	Date	Time
Warm-up		
Pre-test		
Unit I		
Break		
Unit I (con't)		
Lunch		
Unit II		
Break		
Unit II (con't)		
Post-test		
Student certificates		

Volume III
Data Entry

MSIS Input Forms

- Processing Options
- Table Creation
- Record Creation and Maintenance
- Water Quality Transactions

Operational Input Forms

- Processing Options Input Forms
- Table Creation Input Forms

Informational Input Forms

- Record Creation and Maintenance
- Water Quality Transactions

Unit I
Operational Input Forms

- Processing Options
- Table Creation

Processing Option
Input Forms
PROC
SORT
SEL1 (Selection Criteria 1)
SEL2 (Selection Criteria 2)

- **Table Creation Input Forms**
  Error Message Table (EMT)
  Data Element Table (DET)
  Code Value Table (CVT)
  Laboratory Table (LBT)
  Regulations File (RGF)

TYPES OF ERROR MESSAGES

Reject (0--)
Invalid (4--)
Warning (1--)

Regulations File
Contaminant Input Forms
Turbidity
Chemical
Bacteriological
Gross Alpha Radionuclide
Gross Beta Radionuclide

Regulations File
Variable Input Forms
Population Table for
Bacteriological Sampling
Fluoride MCL Table
Major Beta Emitter Table

REGS010 REGS.100

MODEL STATE INFORMATION SYSTEM

REGULATIONS SUBSYSTEM

PROCESSING OPTIONS FOR JOB ______________

CARD ID	DATE M D Y
P R O C	☐☐☐☐☐☐
1-4	5-10

STANDARD ERROR PROCESSING OPTIONS:

☐ (11) Y = YES - CREATE A SPECIAL FILE OF ERROR RECORDS
N = NO - DO NOT CREATE A SPECIAL OUTPUT FILE

☐ (12) Y = YES - PRINT ONLY THE DATA ELEMENT FIELDS WHICH WERE IN ERROR
N = NO - PRINT ALL DATA ELEMENT FIELDS

PREPARED BY ______________________________ DATE __/__/__

APPROVED BY ______________________________ DATE __/__/__

REGS010 REGS.100

MODEL STATE INFORMATION SYSTEM
REGULATIONS SUBSYSTEM

PROCESSING OPTIONS FOR JOB ______________

CARD ID	DATE M D Y
P R O C	0 9 1 0 7 7
1-4	5-10

STANDARD ERROR PROCESSING OPTIONS:

N (11)
Y = YES - CREATE A SPECIAL FILE OF ERROR RECORDS
N = NO - DO NOT CREATE A SPECIAL OUTPUT FILE

Y (12)
Y = YES - PRINT ONLY THE DATA ELEMENT FIELDS WHICH WERE IN ERROR
N = NO - PRINT ALL DATA ELEMENT FIELDS

PREPARED BY J Smith DATE 9/9/77
APPROVED BY ______________ DATE __/__/__

WAQC040 WAQC.113

MODEL STATE INFORMATION SYSTEM
WATER QUALITY COMPLIANCE SUBSYSTEM

SORT OPTIONS FOR JOB ______________

CARD ID	SORT SEQUENCE	MNEMONIC NAME OF DATA ELEMENT	SORT MODE	
S O R T 1-4	☐☐ 5-6	☐☐☐☐☐☐☐☐☐☐ 7-16	☐ 17	A=ASCENDING D=DESCENDING
	☐☐ 18-19	☐☐☐☐☐☐☐☐☐☐ 20-29	☐ 30	A=ASCENDING D=DESCENDING
	☐☐ 31-32	☐☐☐☐☐☐☐☐☐☐ 33-42	☐ 43	A=ASCENDING D=DESCENDING
	☐☐ 44-45	☐☐☐☐☐☐☐☐☐☐ 46-55	☐ 56	A=ASCENDING D=DESCENDING
	☐☐ 57-58	☐☐☐☐☐☐☐☐☐☐ 59-68	☐ 69	A=ASCENDING D=DESCENDING

PREPARED BY ______________________________ DATE __/__/__

APPROVED BY ______________________________ DATE __/__/__

MSIS040 MSIS.108

MODEL STATE INFORMATION SYSTEM
STANDARD PROCESSING SUBSYSTEM

STANDARD HISTORY FILE

SELECTION FORM - DEFINITION OF DATA ELEMENTS

CARD ID	DATA ELEMENT MNEMONIC NAME	DATA ELEMENT COMPARATIVE VALUE	DATA ELEMENT LOGIC ID NO.
S E L 1 1-4	☐☐☐☐☐☐☐☐☐☐ 5-14	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ 15-29	☐☐ 30-31
DUP 1 - 4	☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐
.	☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐
.	☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐
.	☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐
.	☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐
.	☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐
.	☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐
.	☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐
.	☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐
.	☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐
.	☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐
.	☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐

PREPARED BY ______________________________ DATE __/__/__

APPROVED BY ______________________________ DATE __/__/__

MODEL STATE INFORMATION SYSTEM

STANDARD PROCESSING SUBSYSTEM

STANDARD HISTORY FILE

SELECTION FORM - DEFINITION OF LOGIC FOR SELECTION

RELATION SYMBOLS: LT = LESS THAN
EQ = EQUAL
GT = GREATER THAN
NL = NOT LESS THAN
NG = NOT GREATER THAN
NX = NOT EXISTS (EMPTY)

CARD ID	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL
S E L 2 1-4	01	☐☐ 5-6	02	☐☐ 7-8	03	☐☐ 9-10	04	☐☐ 11-12
	05	☐☐ 13-14	06	☐☐ 15-16	07	☐☐ 17-18	08	☐☐ 19-20
	09	☐☐ 21-22	10	☐☐ 23-24	11	☐☐ 25-26	12	☐☐ 27-28
	13	☐☐ 29-30	14	☐☐ 31-32	15	☐☐ 33-34	16	☐☐ 35-36
	17	☐☐ 37-38	18	☐☐ 39-40	19	☐☐ 41-42	20	☐☐ 43-44
	21	☐☐ 45-46	22	☐☐ 47-48	23	☐☐ 49-50	24	☐☐ 51-52
	25	☐☐ 53-54	26	☐☐ 55-56	27	☐☐ 57-58	28	☐☐ 59-60
	29	☐☐ 61-62	30	☐☐ 63-64	31	☐☐ 65-66	32	☐☐ 67-68
	33	☐☐ 69-70	34	☐☐ 71-72	35	☐☐ 73-74		

PREPARED BY ______________________________ DATE ___/___/___

APPROVED BY ______________________________ DATE ___/___/___

PWSI020,080

MODEL STATE INFORMATION SYSTEM

PWSI.107

PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

SELECTION FORM - DEFINITION OF DATA ELEMENTS

CARD ID	DATA ELEMENT MNEMONIC NAME	DATA ELEMENT COMPARATIVE VALUE	DATA ELEMENT LOGIC ID NO.
S E L 1 1-4	☐☐☐☐☐☐☐☐☐☐ 5-14	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ 15-29	☐☐ 30-31
DUP 1 - 4	☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐
.	☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐
.	☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐
.	☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐
.	☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐
.	☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐
.	☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐
.	☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐
.	☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐
.	☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐
.	☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐
.	☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐

PREPARED BY ______________________________ DATE ___/___/___

APPROVED BY ______________________________ DATE ___/___/___

III.1.S9

PWSI020.080 PWSI.108

MODEL STATE INFORMATION SYSTEM

PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

SELECTION FORM - DEFINITION OF LOGIC FOR SELECTION

RELATION SYMBOLS: LT = LESS THAN
EQ = EQUAL
GT = GREATER THAN
NL = NOT LESS THAN
NG = NOT GREATER THAN
NX = NOT EXISTS (EMPTY

CARD ID	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATIO SYMBOL
S E L 2 1-4	01	☐☐ 5-6	02	☐☐ 7-8	03	☐☐ 9-10	04	☐☐ 11-12
	05	☐☐ 13-14	06	☐☐ 15-16	07	☐☐ 17-18	08	☐☐ 19-20
	09	☐☐ 21-22	10	☐☐ 23-24	11	☐☐ 25-26	12	☐☐ 27-28
	13	☐☐ 29-30	14	☐☐ 31-32	15	☐☐ 33-34	16	☐☐ 35-36
	17	☐☐ 37-38	18	☐☐ 39-40	19	☐☐ 41-42	20	☐☐ 43-44
	21	☐☐ 45-46	22	☐☐ 47-48	23	☐☐ 49-50	24	☐☐ 51-52
	25	☐☐ 53-54	26	☐☐ 55-56	27	☐☐ 57-58	28	☐☐ 59-60
	29	☐☐ 61-62	30	☐☐ 63-64	31	☐☐ 65-66	32	☐☐ 67-68
	33	☐☐ 69-70	34	☐☐ 71-72	35	☐☐ 73-74		

PREPARED BY ______________________ DATE __/__/__

APPROVED BY ______________________ DATE __/__/__

PWS1020.080 PWS1.107

MODEL STATE INFORMATION SYSTEM

PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

SELECTION FORM - DEFINITION OF DATA ELEMENTS

CARD ID 1-4	DATA ELEMENT MNEMONIC NAME 5-14	DATA ELEMENT COMPARATIVE VALUE 15-29	DATA ELEMENT LOGIC ID NO. 30-31
SEL1	PH-REGION	02	01
DUP 1 - 4			
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PREPARED BY J. Smith DATE 2/9/77

APPROVED BY ______________ DATE __/__/__

PWSI020.080 PWSI.100

MODEL STATE INFORMATION SYSTEM

PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

SELECTION FORM - DEFINITION OF LOGIC FOR SELECTION

RELATION SYMBOLS: LT = LESS THAN GT = GREATER THAN NG = NOT GREATER THAN
EQ = EQUAL NL = NOT LESS THAN NX = NOT EXISTS(EMPTY)

CARD ID	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL	DATA ELEMENT LOGIC ID NO.	RELATION SYMBOL
SEL2 1-4	01	EQ 5-6	02	☐☐ 7-8	03	☐☐ 9-10	04	☐☐ 11-12
	05	☐☐ 13-14	06	☐☐ 15-16	07	☐☐ 17-18	08	☐☐ 19-20
	09	☐☐ 21-22	10	☐☐ 23-24	11	☐☐ 25-26	12	☐☐ 27-28
	13	☐☐ 29-30	14	☐☐ 31-32	15	☐☐ 33-34	16	☐☐ 35-36
	17	☐☐ 37-38	18	☐☐ 39-40	19	☐☐ 41-42	20	☐☐ 43-44
	21	☐☐ 45-46	22	☐☐ 47-48	23	☐☐ 49-50	24	☐☐ 51-52
	25	☐☐ 53-54	26	☐☐ 55-56	27	☐☐ 57-58	28	☐☐ 59-60
	29	☐☐ 61-62	30	☐☐ 63-64	31	☐☐ 65-66	32	☐☐ 67-68
	33	☐☐ 69-70	34	☐☐ 71-72	35	☐☐ 73-74		

PREPARED BY J Smith DATE 9/9/77
APPROVED BY ____________ DATE __/__/__

MSI9030 MSIS.102

MODEL STATE INFORMATION SYSTEM
STANDARD PROCESSING SUBSYSTEM
ERROR MESSAGE TABLE INPUT FORM

CARD ID	FILE ID	ERROR CODE	ERROR MESSAGE
L 1	M S 2-3	☐☐☐ 4-6	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ 7-34
		☐☐☐ 35-37	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ 38-65
DUP 1-3		☐☐☐ 4-6	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ 7-34
		☐☐☐ 35-37	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ 38-65
DUP 1-3		☐☐☐ 4-6	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ 7-34
		☐☐☐ 35-37	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ 38-65
DUP 1-3		☐☐☐ 4-6	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ 7-34
		☐☐☐ 35-37	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ 38-65
DUP 1-3		☐☐☐ 4-6	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ 7-34
		☐☐☐ 35-37	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ 38-65

PREPARED BY ______________________________ DATE __/__/__

APPROVED BY ______________________________ DATE __/__/__

MSI5030 MSIS.102

MODEL STATE INFORMATION SYSTEM
STANDARD PROCESSING SUBSYSTEM
ERROR MESSAGE TABLE INPUT FORM

CARD ID	FILE ID	ERROR CODE	ERROR MESSAGE
1 1	MS 2-3	001 4-6	REJECT-INVALID RECORD-ID 7-34
		002 35-37	REJECT-RECORD ALREADY EXISTS 38-65
DUP 1-3		003 4-6	REJECT-NO MATCHING RECORD-ID 7-34
		004 35-37	REJECT-RECORD IS INCOMPLETE 38-65
.		005 4-6	REJECT-CONTAM ID INVALID 7-34
		006 35-37	REJECT-STATE VALUE TOO LOW 38-65
.		007 4-6	REJECT-STATE VALUE TOO HIGH 7-34
		008 35-37	REJECT-FED. RECORD MISSING 38-65
.		009 4-6	REJECT-REC. HAS INVALID DATA 7-34
		010 35-37	REJECT-NOT NUMERIC 38-65

PREPARED BY J. Smith DATE 6/23/77

APPROVED BY ______________ DATE __/__/__

MSIS030

MODEL STATE INFORMATION SYSTEM

MSIS.102

STANDARD PROCESSING SUBSYSTEM

ERROR MESSAGE TABLE INPUT FORM

CARD ID	FILE ID	ERROR CODE	ERROR MESSAGE
1 1	MS 2-3	401 4-6	INVALID-NOT NUMERIC 7-34
		402 35-37	INVALID-NOT IN CODE TABLE 38-65
DUP 1-3		403 4-6	INVALID-NOT A VALID DATE 7-34
		404 35-37	INVALID-ELEMENT EXCEEDS MAX 38-65
		405 4-6	INVALID-ELEMENT BELOW MIN 7-34
		406 35-37	INVALID-ELEMENT MISSING 38-65
		407 4-6	INVALID-VALUE UNACCEPTABLE 7-34
		408 35-37	INVALID-NOT ALPHABETIC 38-65
		409 4-6	INVALID-NOT ON PUB WATER TBL 7-34
		410 35-37	INVALID-ASSOC VALUE MISSING 38-65

PREPARED BY J. Smith DATE 6/23/77

APPROVED BY ______ DATE __/__/__

MSIS030

MODEL STATE INFORMATION SYSTEM

STANDARD PROCESSING SUBSYSTEM

MSIS.102

ERROR MESSAGE TABLE INPUT FORM

CARD ID	FILE ID	ERROR CODE	ERROR MESSAGE
1 1	MS 2-3	101 4-6	WARNING-CHECK ELEMENT VALUE 7-34
		102 35-37	WARNING-ELEMENT EXCEEDS MAX 38-65
DUP 1-3		103 4-6	WARNING-ELEMENT BELOW MIN 7-34
		104 35-37	WARNING-NOT IN CODE TABLE 38-65
.		105 4-6	WARNING-NOT IN DATA ELE TBL 7-34
		106 35-37	WARNING-DEFAULT VALUE USED 38-65
.		4-6	7-34
		35-37	38-65
.		4-6	7-34
		35-37	38-65

PREPARED BY J. Smith DATE 6/23/77

APPROVED BY ______ DATE __/__/__

MSIS030 MSIS.104

MODEL STATE INFORMATION SYSTEM

STANDARD PROCESSING SUBSYSTEM

DATA ELEMENT TABLE INPUT FORM

CARD ID	FILE ID	D.E. CATALOGUE NUMBER	START POSITION TRANSACTION /	FILE	FIELD LENGTH FILE/	TRANSACTION	MNEMONIC NAME	HISTORY KEPT	
3	☐☐	☐☐☐	☐☐	☐☐☐☐	☐☐	☐☐	☐☐☐☐☐☐☐☐☐☐	☐	Y=YES N=NO
1	2-3	4-6	7-8	9-12	13-14	15-16	17-26	27	
DUP 1	☐☐	☐☐☐	☐☐	☐☐☐☐	☐☐	☐☐	☐☐☐☐☐☐☐☐☐☐	☐	Y=YES N=NO
.	☐☐	☐☐☐	☐☐	☐☐☐☐	☐☐	☐☐	☐☐☐☐☐☐☐☐☐☐	☐	Y=YES N=NO
.	☐☐	☐☐☐	☐☐	☐☐☐☐	☐☐	☐☐	☐☐☐☐☐☐☐☐☐☐	☐	Y=YES N=NO
.	☐☐	☐☐☐	☐☐	☐☐☐☐	☐☐	☐☐	☐☐☐☐☐☐☐☐☐☐	☐	Y=YES N=NO
.	☐☐	☐☐☐	☐☐	☐☐☐☐	☐☐	☐☐	☐☐☐☐☐☐☐☐☐☐	☐	Y=YES N=NO
.	☐☐	☐☐☐	☐☐	☐☐☐☐	☐☐	☐☐	☐☐☐☐☐☐☐☐☐☐	☐	Y=YES N=NO
.	☐☐	☐☐☐	☐☐	☐☐☐☐	☐☐	☐☐	☐☐☐☐☐☐☐☐☐☐	☐	Y=YES N=NO
.	☐☐	☐☐☐	☐☐	☐☐☐☐	☐☐	☐☐	☐☐☐☐☐☐☐☐☐☐	☐	Y=YES N=NO
.	☐☐	☐☐☐	☐☐	☐☐☐☐	☐☐	☐☐	☐☐☐☐☐☐☐☐☐☐	☐	Y=YES N=NO
.	☐☐	☐☐☐	☐☐	☐☐☐☐	☐☐	☐☐	☐☐☐☐☐☐☐☐☐☐	☐	Y=YES N=NO

PREPARED BY ______________________ DATE __/__/__

APPROVED BY ______________________ DATE __/__/__

MSIS030 MSIS.104

MODEL STATE INFORMATION SYSTEM

STANDARD PROCESSING SUBSYSTEM

DATA ELEMENT TABLE INPUT FORM

CARD ID	FILE ID	D.E. CATALOGUE NUMBER	START POSITION TRANSACTION /	FILE	FIELD LENGTH FILE/	TRANSACTION	MNEMONIC NAME	HISTORY KEPT	
3	L0	319	01	0001	05	05	L0-ID	N	Y=YES N=NO
1	2-3	4-6	7-8	9-12	13-14	15-16	17-26	27	
DUP 1	OM	490	22	0133	06	01	OM-OP-CLS	Y	Y=YES N=NO
.	PH	310	00	0001	00	07	PH-PWS-ID	Y	Y=YES N=NO
.	PS	918	08		02		PS-TRAN-CD	N	Y=YES N=NO
.								☐	Y=YES N=NO
.								☐	Y=YES N=NO
.								☐	Y=YES N=NO
.								☐	Y=YES N=NO
.								☐	Y=YES N=NO
.								☐	Y=YES N=NO
.								☐	Y=YES N=NO

PREPARED BY J Smith DATE 6/23/22

APPROVED BY ______ DATE __/__/__

MSIS030

MODEL STATE INFORMATION SYSTEM

MSIS.103

STANDARD PROCESSING SUBSYSTEM

CODE VALUE TABLE INPUT FORM

CARD ID	FILE ID	D.E. CATALOGUE NUMBER	D.E. VALUE	D.E. LENGTH	D.E. DESCRIPTION
2	☐☐	☐☐☐	☐☐☐☐☐☐☐☐☐	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
1	2-3	4-6	7-15	16	17-46
DUP 1	☐☐	☐☐☐	☐☐☐☐☐☐☐☐☐	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.	☐☐	☐☐☐	☐☐☐☐☐☐☐☐☐	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.	☐☐	☐☐☐	☐☐☐☐☐☐☐☐☐	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.	☐☐	☐☐☐	☐☐☐☐☐☐☐☐☐	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.	☐☐	☐☐☐	☐☐☐☐☐☐☐☐☐	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.	☐☐	☐☐☐	☐☐☐☐☐☐☐☐☐	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.	☐☐	☐☐☐	☐☐☐☐☐☐☐☐☐	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.	☐☐	☐☐☐	☐☐☐☐☐☐☐☐☐	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.	☐☐	☐☐☐	☐☐☐☐☐☐☐☐☐	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.	☐☐	☐☐☐	☐☐☐☐☐☐☐☐☐	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.	☐☐	☐☐☐	☐☐☐☐☐☐☐☐☐	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

PREPARED BY ______________________________ DATE ___/___/___

APPROVED BY ______________________________ DATE ___/___/___

MSIS030

MODEL STATE INFORMATION SYSTEM

MSIS.103

STANDARD PROCESSING SUBSYSTEM

CODE VALUE TABLE INPUT FORM

CARD ID	FILE ID	D.E. CATALOGUE NUMBER	D.E. VALUE	D.E. LENGTH	D.E. DESCRIPTION
2	LB	809	001	3	NEPHELOMETRIC
1	2-3	4-6	7-15	16	17-46
DUP 1	LB	321	P	1	PUBLIC WATER SUPPLY
.	MS	001	0100	4	TURBIDITY
.	OM	479	1	1	PUBLIC WATER SYSTEM - COM
.	EA	449	I	1	INITIAL ACTION PENDING
.	EA	449	L	1	NOT A LEGAL ACTION
.					
.					
.					
.					
.					
.					

PREPARED BY J. Smith DATE 6/23/77

APPROVED BY ________________ DATE __/__/__

WAQC210

MODEL STATE INFORMATION SYSTEM

WAQC.101

WATER QUALITY COMPLIANCE SUBSYSTEM

LABORATORY TABLE INPUT FORM

LAB ID ☐☐☐☐☐ 1-5

9 6

OWNER TYPE ☐ 7

LABORATORY NAME ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ 8 - 37

EXPIRATION DATE
M D Y
☐☐☐☐☐☐ 38-43

CARD CODE: L1 79-80

PREPARED BY ____________________ DATE ___/___/___

APPROVED BY ____________________ DATE ___/___/___

WAQC210 WAQC.102

MODEL STATE INFORMATION SYSTEM

WATER QUALITY COMPLIANCE SUBSYSTEM

LABORATORY TABLE INPUT FORM

LAB ID ☐☐☐☐☐ 1-5

CONTAMINANT GROUP ☐ 6

AUTHORIZED ANALYSIS METHOD CODES

☐☐☐ 7-9	☐☐☐ 10-12	☐☐☐ 13-15	☐☐☐ 16-18	☐☐☐ 19-21	☐☐☐ 22-24	☐☐☐ 25-27	☐☐☐ 28-30	☐☐☐ 31-33	☐☐☐ 34-36
☐☐☐ 37-39	☐☐☐ 40-42	☐☐☐ 43-45	☐☐☐ 46-48	☐☐☐ 49-51	☐☐☐ 52-54	☐☐☐ 55-57	☐☐☐ 58-60	☐☐☐ 61-63	☐☐☐ 64-66
☐☐☐ 67-69	☐☐☐ 70-72	☐☐☐ 73-75	☐☐☐ 76-78						

CONTAMINANT GROUP CODES
0 - TURBIDITY
1 - INORGANIC CHEMICALS
2 - ORGANIC CHEMICALS
3 - MICROBIOLOGICAL
4 - RADIONUCLIDE
9 - OTHER

CARD CODE: L 2 79-80

PREPARED BY ______________________________ DATE ___/___/___

APPROVED BY ______________________________ DATE ___/___/___

WAQC210 WAQC.101

MODEL STATE INFORMATION SYSTEM

WATER QUALITY COMPLIANCE SUBSYSTEM

LABORATORY TABLE INPUT FORM

LAB ID: 00001 (1-5)

9 (6)

OWNER TYPE: P (7)

LABORATORY NAME: COMMONWEALTH OF VIRGINIA (8 - 37)

EXPIRATION DATE (M D Y): 062478 (38-43)

CARD CODE, L1 (79-80)

PREPARED BY J Smith DATE 6 / 23 / 77

APPROVED BY ______________ DATE __/__/__

WAQC210 WAQC.102

MODEL STATE INFORMATION SYSTEM

WATER QUALITY COMPLIANCE SUBSYSTEM

LABORATORY TABLE INPUT FORM

LAB ID	CONTAMINANT GROUP
00001	0
1-5	6

AUTHORIZED ANALYSIS METHOD CODES

001									
7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30	31-33	34-36
37-39	40-42	43-45	46-48	49-51	52-54	55-57	58-60	61-63	64-66
67-69	70-72	73-75	76-78						

CONTAMINANT GROUP CODES
0 - TURBIDITY
1 - INORGANIC CHEMICALS
2 - ORGANIC CHEMICALS
3 - MICROBIOLOGICAL
4 - RADIONUCLIDE
9 - OTHER

CARD CODE: L2
79-80

PREPARED BY J. Smith DATE 6/23/77

APPROVED BY ______________________ DATE __/__/__

REG3010 REG3.102

MODEL STATE INFORMATION SYSTEM

REGULATIONS SUBSYSTEM

TURBIDITY CONTAMINANT INPUT FORM

CONTAMINANT ID [0|1|0|0] 1 - 4

REGULATION/LEVEL ☐☐ 5-6

CONTAMINANT NAME [T|U|R|B|I|D|I|T|Y] 7 - 15

MCL FOR MONTHLY AVERAGE ☐☐ 16-17

MCL FOR CONSECUTIVE SAMPLES ☐☐ 18-19

NUMBER OF CONSECUTIVE SAMPLES ☐☐ 20-21

EFFECTIVE DATE M D Y ☐☐☐☐☐☐ 22 - 27

APPLY TO ALL SOURCES ☐ 28

INCLUDE REPEAT SAMPLES IN AVERAGE ☐ 29

FREQUENCY OF MONITORING

COMMUNITY PWS: ☐☐☐ 30-32 NON-COMMUNITY PWS: ☐☐☐ 33-35

MINIMUM RESAMPLING PERIOD IF MCL EXCEEDED ☐☐ 36-37

III.1.S25

PREPARED BY ______________________ DATE ___/___/___ CARD CODE: [T|1] 79-80

APPROVED BY ______________________ DATE ___/___/___

REG9010 — REG3.102

MODEL STATE INFORMATION SYSTEM

REGULATIONS SUBSYSTEM

TURBIDITY CONTAMINANT INPUT FORM

CONTAMINANT ID 0100 1 - 4	REGULATION/LEVEL FP 5-6	CONTAMINANT NAME TURBIDITY 7 - 15
MCL FOR MONTHLY AVERAGE 01 16-17	MCL FOR CONSECUTIVE SAMPLES 05 18-19	NUMBER OF CONSECUTIVE SAMPLES 02 20-21
EFFECTIVE DATE M D Y 062477 22 - 27	APPLY TO ALL SOURCES N 28	INCLUDE REPEAT SAMPLES IN AVERAGE Y 29

FREQUENCY OF MONITORING

COMMUNITY PWS: 365 (30-32) NON-COMMUNITY PWS: 000 (33-35)

MINIMUM RESAMPLING PERIOD IF MCL EXCEEDED: 60 (36-37)

PREPARED BY J Smith DATE 6/23/77 CARD CODE: T1 (79-80)

APPROVED BY ____________ DATE __/__/__

REGS010 REGS.101

MODEL STATE INFORMATION SYSTEM

REGULATIONS SUBSYSTEM

CHEMICAL CONTAMINANT INPUT FORM

CONTAMINANT ID ☐☐☐☐ 1 - 4

REGULATION/LEVEL ☐☐ 5-6

CHEMICAL NAME ☐☐☐☐☐☐☐☐☐☐☐ 7 - 17

REASON FOR MONITORING ☐ 18

MCL UNITS ☐☐☐☐☐☐ 19 - 24

MCL ☐☐☐☐☐☐ 25 - 30

MCL DECIMALS ☐ 31

REASONABLE BOUNDS

LOWER ☐☐☐☐☐ 32 - 36

DECIMALS ☐ 37

UPPER ☐☐☐☐☐ 38 - 42

DECIMALS ☐ 43

NUMBER OF CHECK SAMPLES REQUIRED IF REGULAR SAMPLE VIOLATES ☐ 44

SEASONAL SAMPLING (ORGANIC ONLY) ☐ 45

SPECIAL COMPUTATION ☐ 46

MAXIMUM TIME TO INITIATE SECOND SAMPLE ANALYSIS IF REGULAR SAMPLE IS IN VIOLATION (NITRATE ONLY) ☐☐ 47-48

PERIOD WITHIN WHICH CHECK SAMPLES MUST BE MADE ☐☐ 49-50

PWS TYPE	EFFECTIVE DATE	MONITORING SOURCE TYPE	REQUIREMENTS YEARS TO FIRST SAMPLE	NORMAL SAMPLING FREQUENCY	IF MCL MINIMUM SAMPLING FREQUENCY	IS VIOLATED MINIMUM NUMBER OF SUCCESS NEGATIVE SAMPLES
	M D Y					
COMMUNITY:	☐☐☐☐☐☐ 51 - 56	GROUND:	☐ 57	☐☐☐☐ 58 - 61	☐☐☐☐ 62 - 65	☐☐ 66-67
		SURFACE:	☐ 68	☐☐☐☐ 69 - 72	☐☐☐☐ 73 - 76	☐☐ 77-78

CARD CODE: C 1 79-80

DUP 1-6

	M D Y					
NON-COMMUNITY:	☐☐☐☐☐☐ 51 - 56	GROUND:	☐ 57	☐☐☐☐ 58 - 61	☐☐☐☐ 62 - 65	☐☐ 66-67
		SURFACE:	☐ 68	☐☐☐☐ 69 - 72	☐☐☐☐ 73 - 76	☐☐ 77-78

PREPARED BY ________________ DATE __/__/__

APPROVED BY ________________ DATE __/__/__

CARD CODE: C 2 79-80

III.1.S27

REG9010 REG9.104

MODEL STATE INFORMATION SYSTEM

REGULATIONS SUBSYSTEM

BACTERIOLOGICAL CONTAMINANT INPUT FORM

CONTAMINANT ID	REGULATION/LEVEL	CONTAMINANT NAME	EFFECTIVE DATE M D Y
3 0 0 0	☐☐	C O L I F O R M	☐☐☐☐☐☐
1 - 4	5-6	7 - 14	15 - 20

ANALYSIS METHOD	UNIT	SINGLE SAMPLE MCL	MONTHLY MCL	PERCENT OF SAMPLES	MINIMUM REQUIRED SAMPLES TO USE PERCENT	MCL WHEN PERCENT IS USED
MEMBRANE FILTER	COLIFORM	☐☐ 21-22	☐☐ 23-24	☐☐ 25-26	☐☐ 27-28	☐☐ 29-30
FERMENTATION TUBE 10ML.	POSITIVE TUBES	☐☐ 31-32	☐☐ (%) 33-34	☐☐ 35-36	☐☐ 37-38	☐☐ 39-40
FERMENTATION TUBE 100ML.	POSITIVE TUBES	☐☐ 41-42	☐☐ (%) 43-44	☐☐ 45-46	☐☐ 47-48	☐☐ 49-50

REQUIREMENTS FOR WAIVER OF ONE MONTH SAMPLING	MAXIMUM REQUIRED SAMPLES	SAMPLING PERIOD
	☐ 51	☐ 52

CHECK SAMPLING REQUIREMENTS IF SINGLE SAMPLE MCL IS VIOLATED

MINIMUM NUMBER OF CONSECUTIVE DAILY CHECK SAMPLES	MINIMUM NUMBER OF CONSECUTIVE NEGATIVE PORTIONS	MINIMUM NUMBER OF CONSECUTIVE COLIFORM BACTERIA
☐ 53	☐ 54	☐☐ 55-56

CHLORINE RESIDUAL METHOD

NUMBER OF SAMPLES IN LIEU OF ONE REGULAR SAMPLE	MAXIMUM PERCENT OF REGULAR SAMPLES	MINIMUM CHLORINE LEVEL	MAXIMUM TIME TO RETEST CHLORINE LEVEL
☐☐ 57-58	☐☐ 59-60	☐☐ 61-62	☐☐ 63-64

NON-COMMUNITY PWS MONITORING FREQUENCY

EFFECTIVE DATE M D Y	SEASONAL SAMPLING	PERIOD	NUMBER OF SAMPLES PER PERIOD
☐☐☐☐☐☐ 65 - 70	☐ 71	☐ 72	☐☐ 73-74

PREPARED BY ______________________ DATE ___/___/___ CARD CODE: M 1 79-80

APPROVED BY ______________________ DATE ___/___/___

REG9010

MODEL STATE INFORMATION SYSTEM

REGULATIONS SUBSYSTEM

GROSS ALPHA RADIONUCLIDE CONTAMINANT INPUT FORM

CONTAMINANT ID	REGULATION/LEVEL	CONTAMINANT NAME	EFFECTIVE DATE M D Y
4 0 0 0	☐☐	G R O S S ☐ A L P H A	☐☐☐☐☐☐
1-4	5-6	7-17	18-23

MCL AND SCREENING LEVELS		MAXIMUM GROSS ALPHA SCREENING LEVEL		MAXIMUM RADIUM-226 SCREENING LEVEL	
GROSS ALPHA MCL	COMBINED RADIUM MCL	WITHOUT RADIUM-228	WITH RADIUM-228	FOR RADIUM-228	FOR ANNUAL MONITORING
☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐
24-26	27-29	30-32	33-35	36-38	39-41

SAMPLING AND ANALYSIS REQUIREMENTS

NUMBER OF SAMPLES PER YEAR	MINIMUM NORMAL MONITORING FREQUENCY	INITIAL MONITORING PERIOD FOR NEW WATER SOURCE	FRACTION OF MCL AT WHICH TO SUBSTITUTE SINGLE ANNUAL SAMPLE
☐	☐	☐☐	☐☐
42	43	44-45	46-47
MINIMUM MONITORING FREQUENCY IF PWS IS IN VIOLATION	ANNUAL COMPOSITE OR FOUR SAMPLE AVERAGE REQUIRED	THESE REGULATIONS APPLY TO COMMUNITY, NON-COMMUNITY OR BOTH	
☐☐	☐	☐	
48-49	50	51	

PREPARED BY ______________________ DATE ___/___/___ CARD CODE: A 1 (79-80)

APPROVED BY ______________________ DATE ___/___/___

REGS010 REGS.108

MODEL STATE INFORMATION SYSTEM

REGULATIONS SUBSYSTEM

GROSS BETA RADIONUCLIDE CONTAMINANT INPUT FORM

CONTAMINANT ID	REGULATION/LEVEL	CONTAMINANT NAME	EFFECTIVE DATE M D Y
4100	☐☐	GROSS BETA	☐☐☐☐☐☐
1-4	5-6	7-16	17-22

MCL AND SCREENING LEVELS

MAN-MADE RADIONUCLIDE ANNUAL MCL DOSAGE	TRITIUM SCREENING LEVEL	STRONTIUM-90 SCREENING LEVEL	MAXIMUM FOR MAJOR BETA EMITTERS - NO NUCLEAR FACILITY CONTAMINATION	GROSS BETA SCREENING LEVELS FOR MAJOR BETA EMITTERS - WATERS CONTAMINATED BY A NUCLEAR FACILITY	FOR STRONTIUM-89 AND CESIUM-134 - WATERS CONTAMINATED BY A NUCLEAR FACILITY
☐☐	☐☐☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐
23-24	25-29	30-32	33-35	36-38	39-41

SAMPLING AND ANALYSIS REQUIREMENTS

THESE REGULATIONS APPLY TO COMMUNITY, NON-COMMUNITY OR BOTH	REQUIRE MONITORING OF GROUND WATER SOURCES	COMPOSITE OR SAMPLE AVERAGE REQUIRED	MINIMUM POPULATION FOR REQUIRED ANNUAL MONITORING
☐	☐	☐	☐☐☐☐☐☐
42	43	44	45-50

NO NUCLEAR FACILITY CONTAMINATION

INITIAL NUMBER OF SAMPLES PER YEAR	MINIMUM NORMAL MONITORING FREQUENCY	MINIMUM MONITORING FREQUENCY IF PWS IS IN VIOLATION
☐	☐	☐☐
51	52	53-54

WATERS CONTAMINATED BY A NUCLEAR FACILITY

NUMBER OF SAMPLES PER YEAR		MINIMUM NORMAL MONITORING FREQUENCY		MINIMUM MONITORING FREQUENCY IF PWS IS IN VIOLATION	IODINE-131 CONSECUTIVE DAILY SAMPLES REQUIRED PER QUARTER
IODINE-131	STRONTIUM-90 AND TRITIUM	IODINE-131	STRONTIUM-90 AND TRITIUM		
☐☐	☐☐	☐☐	☐☐	☐☐	☐☐
55-56	57-58	59-60	61-62	63-64	65-66

PREPARED BY ______________________________ DATE ___/___/___

APPROVED BY ______________________________ DATE ___/___/___

CARD CODE: B1
79-80

REG9010 REG9.109

MODEL STATE INFORMATION SYSTEM

REGULATIONS SUBSYSTEM

POPULATION TABLE FOR BACTERIOLOGICAL SAMPLING INPUT FORM

CONTAMINANT ID	REGULATION/LEVEL	TABLE ID
3000		1
1 - 4	5-6	7

	POPULATION LOWER LIMIT 8 - 16	POPULATION UPPER LIMIT 17 - 25	MINIMUM SAMPLES PER MONTH 26-28	CARD CODE
DUP				DUP
1-7				79-80
.				.
.				.
.				.
.				.
.				.
.				.
.				.
.				.
.				.
.				.
.				.
.				.
.				.
	8 - 16	17 - 25	26-28	

III.1.S31

PREPARED BY ______________________ DATE ___/___/___ CARD CODE: P1 79-80

APPROVED BY ______________________ DATE ___/___/___

REGS010 REGS.103

MODEL STATE INFORMATION SYSTEM

REGULATIONS SUBSYSTEM

POPULATION TABLE FOR BACTERIOLOGICAL SAMPLING INPUT FORM

CONTAMINANT ID	REGULATION/LEVEL	TABLE ID
3000		1
1 - 4	5-6	7

	POPULATION LOWER LIMIT 8 - 16	POPULATION UPPER LIMIT 17 - 25	MINIMUM SAMPLES PER MONTH 26-28	CARD CODE
DUP	000028001	000033000	035	DUP
1-7	000033001	000037000	040	79-80
.	000037001	000041000	045	.
.	000041001	000046000	050	.
.	000046001	000050000	055	.
.	000050001	000054000	060	.
.	000054001	000059000	065	.
.	000059001	000064000	070	.
.	000064001	000070000	075	.
.	000070001	000076000	080	.
.	000076001	000083000	085	.
.	000083001	000090000	090	.
.	000090001	000096000	095	.
.	000096001	000111000	100	.
.	000111001	000130000	110	.
	8 - 16	17 - 25	26-28	

III.1.S32

PREPARED BY J. Smith DATE 6/23/77 CARD CODE: P1 79-80

APPROVED BY ________ DATE __/__/__

REGS010 REGS.105

MODEL STATE INFORMATION SYSTEM

REGULATIONS SUBSYSTEM

FLUORIDE MCL TABLE INPUT FORM

CONTAMINANT ID	REGULATION/LEVEL	TABLE ID
1025	☐☐	2
1 - 4	5-6	7

TEMPERATURE RANGES AND CORRESPONDING MCL

CARD CODE

	FAHRENHEIT		CELSIUS		MCL		
	LOWER	UPPER	LOWER	UPPER			
	8-10	11-13	14-16	17-19	20 - 25		
DUP	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐☐☐☐	DUP	DUP
1-7	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐☐☐☐	26-37	79-80
.	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐☐☐☐	(BELOW)	.
.	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐☐☐☐	.	.
.	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐☐☐☐	.	.
.	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐☐☐☐	.	.
.	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐☐☐☐	.	.
.	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐☐☐☐	.	.
.	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐☐☐☐	.	.
.	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐☐☐☐	.	.
	8-10	11-13	14-16	17-19	20 - 25		

REASONABLE BOUNDS

☐☐☐	☐☐☐	☐☐☐	☐☐☐
26-28	29-31	32-34	35-37

PREPARED BY ______________________________ DATE __/__/__

APPROVED BY ______________________________ DATE __/__/__

CARD CODE: F1
79-80

REG9010

MODEL STATE INFORMATION SYSTEM

REG3.106

REGULATIONS SUBSYSTEM

MAJOR BETA EMITTER TABLE INPUT FORM

REGULATION/LEVEL	TABLE ID	EFFECTIVE DATE M D Y
☐☐	3	☐☐/☐☐/☐☐
5-6	7	8-13

CONTAMINANT ID		CONTAMINANT NAME	ANNUAL CONCENTRATION EQUIVALENT TO MCL DOSE	DETECTION LIMIT	NUCLEAR FACILITY CODE (9)					CARD CODE
1-4		14-28	29-34	35-38	39	40	41	42	43	
4☐☐☐	DUP	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐	☐☐☐☐	☐	☐	☐	☐	☐	DUP
4☐☐☐	5-13	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐	☐☐☐☐	☐	☐	☐	☐	☐	79-80
4☐☐☐	.	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐	☐☐☐☐	☐	☐	☐	☐	☐	.
4☐☐☐	.	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐	☐☐☐☐	☐	☐	☐	☐	☐	.
4☐☐☐	.	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐	☐☐☐☐	☐	☐	☐	☐	☐	.
4☐☐☐	.	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐	☐☐☐☐	☐	☐	☐	☐	☐	.
4☐☐☐	.	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐	☐☐☐☐	☐	☐	☐	☐	☐	.
4☐☐☐	.	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐	☐☐☐☐	☐	☐	☐	☐	☐	.
4☐☐☐	.	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐	☐☐☐☐	☐	☐	☐	☐	☐	.
4☐☐☐	.	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐	☐☐☐☐	☐	☐	☐	☐	☐	.
4☐☐☐	.	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐	☐☐☐☐	☐	☐	☐	☐	☐	.
4☐☐☐	.	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐	☐☐☐☐	☐	☐	☐	☐	☐	.
4☐☐☐	.	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐	☐☐☐☐	☐	☐	☐	☐	☐	.
4☐☐☐	.	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐	☐☐☐☐	☐	☐	☐	☐	☐	.
4☐☐☐	.	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐	☐☐☐☐	☐	☐	☐	☐	☐	.
1-4		14-28	29-34	35-38	39	40	41	42	43	

PREPARED BY ______________________ DATE ___/___/___

APPROVED BY ______________________ DATE ___/___/___

CARD CODE: E1 79-80

Unit II
Informational Input Forms

Informational Input Forms

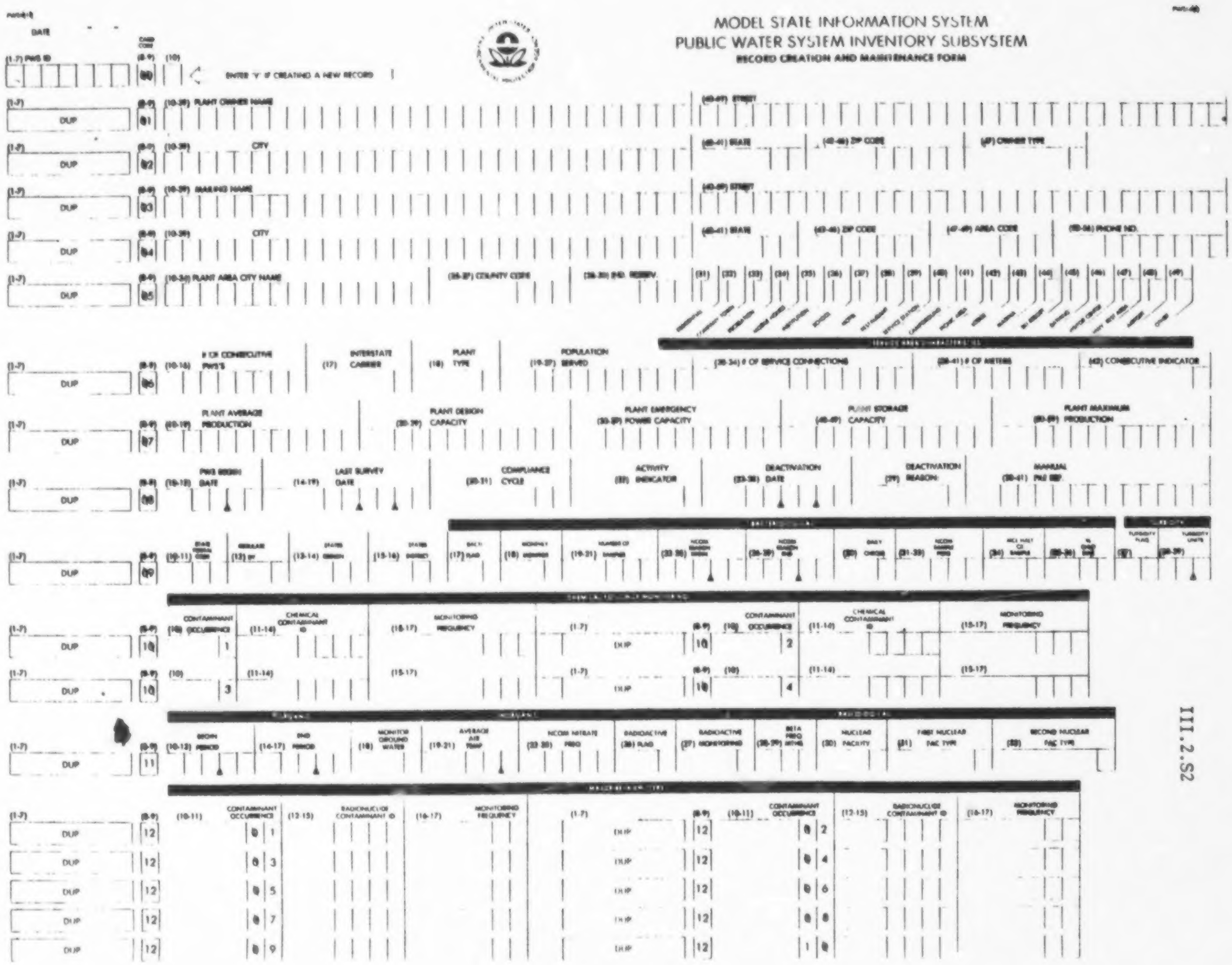
- Record Creation and Maintenance
- Water Quality Transactions

Record Creation and Maintenance Forms

- Public Water System Inventory
- Variances and Exemptions
- Enforcement Actions
- Operator and Mailing

Water Quality Transactions Input Forms

- Bacteriological or Turbidity
- Bacteriological or Turbidity Summary
- Chemical or Radiological
- Sample Deletion (PSF)
- Sample Deletion (SAF)



MODEL STATE INFORMATION SYSTEM
PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM
RECORD CREATION AND MAINTENANCE FORM

DATE - -

(1-7) PWS ID | (8-9) CARD CODE 00 | (10) ENTER 'Y' IF CREATING A NEW RECORD

(1-7) DUP | (8-9) 01 | (10-39) PLANT OWNER NAME | (40-69) STREET

(1-7) DUP | (8-9) 02 | (10-39) CITY | (40-41) STATE | (42-46) ZIP CODE | (47) OWNER TYPE

(1-7) DUP | (8-9) 03 | (10-39) MAILING NAME | (40-69) STREET

(1-7) DUP | (8-9) 04 | (10-39) CITY | (40-41) STATE | (42-46) ZIP CODE | (47-49) AREA CODE | (50-56) PHONE NO.

(1-7) DUP | (8-9) 05 | (10-24) PLANT AREA CITY NAME | (25-27) COUNTY CODE | (28-30) IND. RESERV. | (31) | (32) | (33) | (34) | (35) | (36) | (37) | (38) | (39) | (40) | (41) | (42) | (43) | (44) | (45) | (46) | (47) | (48) | (49)

SERVICE AREA CHARACTERISTICS

(1-7) DUP | (8-9) 06 | (10-16) # OF CONSECUTIVE PWS'S | (17) INTERSTATE CARRIER | (18) PLANT TYPE | (19-27) POPULATION SERVED | (28-34) # OF SERVICE CONNECTIONS | (35-41) # OF METERS | (42) CONSECUTIVE INDICATOR

(1-7) DUP | (8-9) 07 | (10-19) PLANT AVERAGE PRODUCTION | (20-29) PLANT DESIGN CAPACITY | (30-39) PLANT EMERGENCY POWER CAPACITY | (40-49) PLANT STORAGE CAPACITY | (50-59) PLANT MAXIMUM PRODUCTION

(1-7) DUP | (8-9) 08 | (10-13) PWS BEGIN DATE | (14-19) LAST SURVEY DATE | (20-21) COMPLIANCE CYCLE | (22) ACTIVITY INDICATOR | (23-28) DEACTIVATION DATE | (29) DEACTIVATION REASON | (30-41) MANUAL PAS REF.

BACTERIOLOGICAL | TURBIDITY

(1-7) DUP | (8-9) 09 | (10-11) [illegible] | (12) BY | (13-14) STATE REGION | (15-16) STATE DISTRICT | (17) BACT FLAG | (18) MONTHLY [illegible] | (19-21) NUMBER OF SAMPLES | (22-25) NCOM [illegible] | (26-29) NCOM [illegible] | (30) DAILY CHLOR | (31-33) NCOM [illegible] | (34) MCL [illegible] | (35-36) % [illegible] | (37) TURBIDITY FLAG | (38-39) TURBIDITY UNITS

[illegible]

(1-7) DUP | (8-9) 10 | (10) CONTAMINANT OCCURRENCE 1 | (11-14) CHEMICAL CONTAMINANT ID | (15-17) MONITORING FREQUENCY | (1-7) DUP | (8-9) 10 | (10) CONTAMINANT OCCURRENCE 2 | (11-14) CHEMICAL CONTAMINANT ID | (15-17) MONITORING FREQUENCY

(1-7) DUP | (8-9) 10 | (10) 3 | (11-14) | (15-17) | (1-7) DUP | (8-9) 10 | (10) 4 | (11-14) | (15-17)

[illegible] | [illegible] | RADIOLOGICAL

(1-7) DUP | (8-9) 11 | (10-13) BEGIN PERIOD | (14-17) END PERIOD | (18) MONITOR GROUND WATER | (19-21) AVERAGE AIR TEMP | (22-25) NCOM NITRATE FREQ | (26) RADIOACTIVE FLAG | (27) RADIOACTIVE MONITORING | (28-29) BETA FREQ [illegible] | (30) NUCLEAR FACILITY | (31) FIRST NUCLEAR FAC TYPE | (32) SECOND NUCLEAR FAC TYPE

[illegible]

(1-7) DUP | (8-9) 12 | (10-11) CONTAMINANT OCCURRENCE 0 1 | (12-15) RADIONUCLIDE CONTAMINANT ID | (16-17) MONITORING FREQUENCY | (1-7) DUP | (8-9) 12 | (10-11) CONTAMINANT OCCURRENCE 0 2 | (12-15) RADIONUCLIDE CONTAMINANT ID | (16-17) MONITORING FREQUENCY

DUP | 12 | 0 3 | DUP | 12 | 0 4

DUP | 12 | 0 5 | DUP | 12 | 0 6

DUP | 12 | 0 7 | DUP | 12 | 0 8

DUP | 12 | 0 9 | DUP | 12 | 1 0

(1-7) ___ DUP (8-9) 13 (10-11) (12-13) (14) (15) (16-19) (20)

(1-7) ___ DUP (8-9) 14 LABORATORY DATA (10) BACTERIOLOGICAL 1 (11-15) LAB ID (16)

LABORATORY DATA

(1-7) ___ DUP (8-9) 14 (10) INORGANIC 2 (11-15) LAB ID (16)

(1-7) ___ DUP (8-9) 14 (10) RADIOLOGICAL 4 (11-15) (16)

(1-7) ___ DUP (8-9) 14 (10) ORGANIC 3 (11-15) LAB ID (16)

(1-7) ___ DUP (8-9) 14 (10) TURBIDITY 5 (11-15) (16)

VARIANCE EXEMPTION ACTION

(1-7) ___ DUP (8-9) 15 (10) OCCURRENCE 1 (11-14) CONTAMINANT ID (15-19) MODIFIED MCL (20) NUMBER OF DECIMAL UNITS (21-23) ALTERNATE MONITOR FREQ

(1-7) ___ DUP (8-9) 15 (10) 3 (11-14) (15-19) (20) (21-23)

(1-7) ___ DUP (8-9) 15 (10) OCCURRENCE 2 (11-14) CONTAMINANT ID (15-19) MODIFIED MCL (20) NUMBER OF DECIMAL UNITS (21-23) ALTERNATE MONITOR FREQ

(1-7) ___ DUP (8-9) 15 (10) 4 (11-14) (15-19) (20) (21-23)

SOURCES OF WATER

			(10-11)	(12-26) SOURCE NAME	(27)	(28-29)	(30)	(31-34) RIVER BASIN NUMBER	LATITUDE DEGREES (35-37)	LATITUDE MINUTES (38-39)	LATITUDE SECONDS (40-41)	LONGITUDE DEGREES (42-44)	LONGITUDE MINUTES (45-46)	LONGITUDE SECONDS (47-48)	PWS ID OF SELLER (PURCHASED WATER ONLY) (49-55)	(56)	(57)	(58)	(59)	(60)	(61)	(62)	(63)	(64)	(65)	(66)	(67)	(68)
(1-7)	DUP	16	0 1																									
(1-7)	DUP	16	0 2																									
(1-7)	DUP	16	0 3																									
(1-7)	DUP	16	0 4																									
(1-7)	DUP	16	0 5																									
(1-7)	DUP	16	0 6																									
(1-7)	DUP	16	0 7																									
(1-7)	DUP	16	0 8																									
(1-7)	DUP	16	0 9																									
(1-7)	DUP	16	1 0																									
(1-7)	DUP	16	1 1																									
(1-7)	DUP	16	1 2																									
(1-7)	DUP	16	1 3																									
(1-7)	DUP	16	1 4																									
(1-7)	DUP	16	1 5																									

PWS1010 PWS1.11W

MODEL STATE INFORMATION SYSTEM

PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

RECORD STATUS AND DELETION FORM

PWS-ID	CARD CODE	CARD CODES:	
☐☐☐☐☐☐☐ 1-7	☐☐ 8-9	98 = PRODUCE STATUS RECORD 99 = DELETE PWF RECORD	Y 10
☐☐☐☐☐☐☐	☐☐	98 = PRODUCE STATUS RECORD 99 = DELETE PWF RECORD	Y
☐☐☐☐☐☐☐	☐☐	98 = PRODUCE STATUS RECORD 99 = DELETE PWF RECORD	Y
☐☐☐☐☐☐☐	☐☐	98 = PRODUCE STATUS RECORD 99 = DELETE PWF RECORD	Y
☐☐☐☐☐☐☐	☐☐	98 = PRODUCE STATUS RECORD 99 = DELETE PWF RECORD	Y
☐☐☐☐☐☐☐	☐☐	98 = PRODUCE STATUS RECORD 99 = DELETE PWF RECORD	Y
☐☐☐☐☐☐☐	☐☐	98 = PRODUCE STATUS RECORD 99 = DELETE PWF RECORD	Y
☐☐☐☐☐☐☐	☐☐	98 = PRODUCE STATUS RECORD 99 = DELETE PWF RECORD	Y

PREPARED BY ______________________________ DATE __/__/__

APPROVED BY ______________________________ DATE __/__/__

VAEX010 VAEX.100

MODEL STATE INFORMATION SYSTEM

VARIANCES AND EXEMPTIONS SUBSYSTEM

RECORD CREATION AND MAINTENANCE FORM

V&E IDENTIFICATION	CARD CODE	RECORD CREATION	
☐☐☐☐☐	0 0	☐	ENTER A 'Y' IF CREATING A NEW RECORD ONLY PUNCH THIS CARD IF A 'Y' IS ENTERED
1 - 5	6-7	8	

		PWS ID	V/E	V&E REFERENCE	EFFECTIVE DATE M D Y	EXPIRATION DATE M D Y	REASON
DUP 1 - 5	0 1	☐☐☐☐☐☐☐	☐	☐☐☐☐☐	☐☐☐☐☐☐	☐☐☐☐☐☐	☐☐
	6-7	8 - 14	15	16 - 20	21 - 26	27 - 32	33-34

STATUS	CONTAMINANT ID	MCL	DEC	TREATMENT	ALTERNATE TREATMENT	MODIFIED FREQUENCY
☐	☐☐☐☐	☐☐☐☐☐	☐	☐☐☐	☐☐☐	☐☐☐
35	36 - 39	40 - 44	45	46-48	49-51	52-54

CASE ABSTRACT

DUP 1 - 5	0 2	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.	0 3	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.	0 4	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.	0 5	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.	0 6	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.	0 7	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.	0 8	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.	0 9	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
	6-7	8 - 37

PREPARED BY ____________________ DATE ___/___/___

APPROVED BY ____________________ DATE ___/___/___

VAEX010 VAEX.107

MODEL STATE INFORMATION SYSTEM

VARIANCES AND EXEMPTIONS SUBSYSTEM

RECORD CREATION AND MAINTENANCE FORM

V&E IDENTIFICATION	CARD CODE	CASE ABSTRACT - CON'T
☐☐☐☐☐	1 0	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.	1 1	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.	1 2	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.	1 3	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
DUP 1 - 5	1 4	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.	1 5	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.	1 6	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.	1 7	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
	6-7	8-37

V&E IDENTIFICATION	CARD CODE	RECORD DELETION	
☐☐☐☐☐	9 9	☐	ENTER A 'Y' IF DELETING A RECORD ONLY PUNCH THIS CARD IF A 'Y' IS ENTERED
1 - 5	6-7	8	

PREPARED BY ____________________ DATE ___/___/___

APPROVED BY ____________________ DATE ___/___/___

VAEX010 VAEX.101

MODEL STATE INFORMATION SYSTEM
VARIANCES AND EXEMPTIONS SUBSYSTEM

RECORD CREATION AND MAINTENANCE FORM

V&E IDENTIFICATION	CARD CODE	TARGET DATE M D Y	MILESTONE CODE	REPORTING FREQUENCY FOR REPEATING MILESTONES - MONTHS
☐☐☐☐☐	2 0	☐☐/☐☐/☐☐	☐☐	☐☐
1-5	6-7	8-13	14-15	16-17

	CARD CODE		MILESTONE DESCRIPTION
DUP 1 - 5	2 1	DUP 8 - 15	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.	2 2	.	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.	2 3	.	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.	2 4	.	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
	6-7		16-45

DATE/DELAY/DELETION REPORTING

V&E IDENTIFICATION	CARD CODE	TARGET DATE M D Y	MILESTONE CODE	DATE ATTAINED M D Y	DELAY/DELETION CODE
☐☐☐☐☐	2 5	☐☐/☐☐/☐☐	☐☐	☐☐/☐☐/☐☐	☐
1-5	6-7	8-13	14-15	16-21	22

PREPARED BY ____________________ DATE ___/___/___

APPROVED BY ____________________ DATE ___/___/___

ENAC010

MODEL STATE INFORMATION SYSTEM
ENFORCEMENT ACTIONS SUBSYSTEM
RECORD CREATION AND MAINTENANCE FORM

ENAC.101

CASE/ACTION IDENTIFICATION ☐☐☐☐☐ 1-5
CARD CODE 0 0 6-7
RECORD CREATION ☐ 8 ENTER A 'Y' IF CREATING A NEW RECORD.
ONLY PUNCH THIS CARD IF A 'Y' IS ENTERED.

DUP 1-5
0 1 6-7
CASE STATUS ☐ 8
1 = CASE OPEN
2 = CASE CLOSED
CASE REFERENCE ☐☐☐☐☐☐☐☐☐☐☐☐ 9 - 20
CASE NAME ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ 21-50

ACTION DATE M D Y ☐☐☐☐☐☐ 51-56
LEGAL STATUS CODE ☐ 57
PWS-ID ☐☐☐☐☐☐☐ 58-64
STATE CODE ☐☐ 65-66

DUP 1-5
0 2 6-7
PLAINTIFF TYPE ☐ 8
PLAINTIFF NAME ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ 9-38
DEFENDANT TYPE ☐ 39
DEFENDANT NAME ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ 40-69

PREPARED BY ______________________ DATE ___/___/___
APPROVED BY ______________________ DATE ___/___/___

ENAC010 ENAC.102

MODEL STATE INFORMATION SYSTEM
ENFORCEMENT ACTIONS SUBSYSTEM
RECORD CREATION AND MAINTENANCE FORM

VIOLATION INFORMATION

CASE/ACTION IDENTIFICATION	CARD CODE	CODE	DATE	CONTAMINANT ID	DELETE CODE	
☐☐☐☐☐ 1-5	0 3 6-7	☐ 8	☐☐☐☐☐☐ 9-14	☐☐☐☐ 15-18	☐ 19	Y = YES, DELETE THIS VIOLATION
.	0 3	☐	☐☐☐☐☐☐	☐☐☐☐	☐	
.	0 3	☐	☐☐☐☐☐☐	☐☐☐☐	☐	
.	0 3	☐	☐☐☐☐☐☐	☐☐☐☐	☐	
.	0 3	☐	☐☐☐☐☐☐	☐☐☐☐	☐	
DUP 1-5	0 3	☐	☐☐☐☐☐☐	☐☐☐☐	☐	
.	0 3	☐	☐☐☐☐☐☐	☐☐☐☐	☐	
.	0 3	☐	☐☐☐☐☐☐	☐☐☐☐	☐	
.	0 3	☐	☐☐☐☐☐☐	☐☐☐☐	☐	
.	0 3	☐	☐☐☐☐☐☐	☐☐☐☐	☐	

CONSENT ORDER AND PERMIT INFORMATION

		CONSENT ORDER NUMBER	CONSENT ORDER DATE M D Y	PERMIT NUMBER	PERMIT DATE M D Y
DUP 1-5	0 4 6-7	☐☐☐☐☐☐☐ 8-14	☐☐☐☐☐☐ 15-20	☐☐☐☐☐☐☐ 21-27	☐☐☐☐☐☐ 28-33

PREPARED BY ______________ ______________ DATE ____/____/____

APPROVED BY ______________________________ DATE ____/____/____

ENAC010

MODEL STATE INFORMATION SYSTEM

ENFORCEMENT ACTIONS SUBSYSTEM

ENAC.103

RECORD CREATION AND MAINTENANCE FORM

CASE/ACTION IDENTIFICATION	CARD CODE	CASE ABSTRACT
☐☐☐☐☐ 1-5	05 6-7	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ 8-37
.	06	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.	07	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.	08	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.	09	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
DUP 1-5	10	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.	11	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.	12	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.	13	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.	14	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

PREPARED BY ______________________________ DATE ___/___/___

APPROVED BY ______________________________ DATE ___/___/___

ENAC010 ENAC.104

MODEL STATE INFORMATION SYSTEM

ENFORCEMENT ACTIONS SUBSYSTEM

RECORD CREATION AND MAINTENANCE FORM

MILESTONE INFORMATION

CASE/ACTION IDENTIFICATION	CARD CODE	MILESTONE CODE	TARGET DATE M D Y	ATTAINED DATE M D Y	DELETE CODE	
☐☐☐☐☐ 1-5	1 5 6-7	☐☐ 8-9	☐☐☐☐☐☐ 10-15	☐☐☐☐☐☐ 16-21	☐ 22	Y = YES, DELETE THIS MILESTONE
.	1 5	☐☐	☐☐☐☐☐☐	☐☐☐☐☐☐	☐	
.	1 5	☐☐	☐☐☐☐☐☐	☐☐☐☐☐☐	☐	
.	1 5	☐☐	☐☐☐☐☐☐	☐☐☐☐☐☐	☐	
.	1 5	☐☐	☐☐☐☐☐☐	☐☐☐☐☐☐	☐	
.	1 5	☐☐	☐☐☐☐☐☐	☐☐☐☐☐☐	☐	
.	1 5	☐☐	☐☐☐☐☐☐	☐☐☐☐☐☐	☐	
DUP 1-5	1 5	☐☐	☐☐☐☐☐☐	☐☐☐☐☐☐	☐	
.	1 5	☐☐	☐☐☐☐☐☐	☐☐☐☐☐☐	☐	
.	1 5	☐☐	☐☐☐☐☐☐	☐☐☐☐☐☐	☐	
.	1 5	☐☐	☐☐☐☐☐☐	☐☐☐☐☐☐	☐	
.	1 5	☐☐	☐☐☐☐☐☐	☐☐☐☐☐☐	☐	
.	1 5	☐☐	☐☐☐☐☐☐	☐☐☐☐☐☐	☐	
.	1 5	☐☐	☐☐☐☐☐☐	☐☐☐☐☐☐	☐	
.	1 5	☐☐	☐☐☐☐☐☐	☐☐☐☐☐☐	☐	

CASE HISTORY REQUEST

☐☐☐☐☐ 1-5	9 8 6-7	☐ 8	Y = YES, SELECT THIS RECORD FOR CASE HISTORY ONLY PUNCH THIS CARD IF A 'Y' IS ENTERED.

RECORD DELETION REQUEST

☐☐☐☐☐ 1-5	9 9 6-7	☐ 8	Y = YES, DELETE THIS RECORD ONLY PUNCH THIS CARD IF A 'Y' IS ENTERED

PREPARED BY ______________________________ DATE __/__/__

APPROVED BY ______________________________ DATE __/__/__

WAQC120 WAQC.136

MODEL STATE INFORMATION SYSTEM
WATER QUALITY COMPLIANCE SUBSYSTEM

VIOLATIONS FILE

RECORD CREATION AND MAINTENANCE FORM

VIOLATION IDENTIFICATION	CARD CODE	RECORD CREATION	
☐☐☐☐☐	0 0	☐	ENTER A 'Y' IF CREATING A NEW RECORD ONLY PUNCH THIS CARD IF A 'Y' IS ENTERED
1-5	6-7	8	

	CARD CODE	PWS ID	REGULATION LEVEL	CONTAMINANT ID	LAB ID	SAMPLE DATE M D Y
DUP 1-5	0 1	☐☐☐☐☐☐☐	☐☐	☐☐☐☐	☐☐☐☐☐	☐☐☐☐☐☐
	6-7	8-14	15-16	17-20	21-25	26-31

-----SAMPLES-----		---------------ANALYSIS---------------				SAMPLING CUT-OFF DATE
NUMBER REQUIRED	NUMBER TAKEN	METHOD	RESULT	DECIMALS	DATE M D Y	M D Y
☐☐☐☐	☐☐☐☐	☐☐☐	☐☐☐☐☐	☐	☐☐☐☐☐☐	☐☐☐☐☐☐
32-35	36-39	40-42	43-47	48	49-54	55-60

PREPARED BY ______________________ DATE ___/___/___

APPROVED BY ______________________ DATE ___/___/___

WAQC120 WAQC.137

MODEL STATE INFORMATION SYSTEM

WATER QUALITY COMPLIANCE SUBSYSTEM

VIOLATIONS FILE

RECORD CREATION AND MAINTENANCE FORM

VIOLATION IDENTIFICATION	CARD CODE	VIOLATION TYPE	VIOLATION DATE M D Y	MCL VIOLATED	MCL VIOLATED DECIMALS	SAMPLING FREQUENCY VIOLATED	NUMBER SAMPLES VIOLATED	VIOLATION DURATION
☐☐☐☐☐	0 2	☐☐	☐☐☐☐☐☐	☐☐☐☐☐	☐	☐☐☐	☐☐☐☐	☐☐
1-5	6-7	8-9	10-15	16-20	21	22-24	25-28	29-30

NOTIFY PUBLIC	NOTIFY STATE	SAMPLE TYPE	SAMPLE KEY	DATE LAST REPORT M D Y
☐	☐	☐	☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐
31	32	33	34-43	44-49

TIME SINCE LAST REPORT	REMARKS
☐☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
50-51	52-76

VIOLATION IDENTIFICATION	CARD CODE	RECORD DELETION
☐☐☐☐☐	9 9	☐
1-5	6-7	8

ENTER A 'Y' IF DELETING A RECORD
ONLY PUNCH THIS CARD IF A 'Y' IS ENTERED

PREPARED BY ____________________ DATE __/__/__

APPROVED BY ____________________ DATE __/__/__

MODEL STATE INFORMATION SYSTEM
OPERATOR AND MAILING SUBSYSTEM

RECORD CREATION AND MAINTENANCE FORM

O&M IDENTIFICATION 00001 (1 - 5) CARD CODE 00 (6-7) RECORD CREATION Y (8) ENTER A 'Y' IF CREATING A NEW RECORD ONLY PUNCH THIS CARD IF A 'Y' IS ENTERED

DUP 1 - 5 CARD CODE 01 (6-7) O&M TYPE 1 (8)

NAME: CINCINNATI WATER WORKS (9-38)

STREET ADDRESS: PO BOX 13 (39-60)

DUP 1 - 5 CARD CODE 02 (6-7)

CITY: CINCINNATI (8-37)

STATE: OH (38-39)

ZIPCODE: 45230 (40 - 44)

AREA CODE: 513 (45-47)

PHONE NUMBER: 5559999 (48 - 54)

DUP 1 - 5 CARD CODE 03 (6-7)

CERTIFICATE NUMBER: ☐☐☐☐☐☐☐ (8 - 14)

PWS ID: 0000001 (15 - 21)

OPERATOR CLASS: A ☐ (22) B ☐ (23) C ☐ (24) D ☐ (25) E ☐ (26) F ☐ (27)

CERTIFICATE RENEWAL DATE M D Y: ☐☐☐☐☐☐ (28 - 33)

O&M IDENTIFICATION ☐☐☐☐☐ CARD CODE 99 (6-7) RECORD DELETION ☐ (8) ENTER A 'Y' IF DELETING A RECORD ONLY PUNCH THIS CARD IF A 'Y' IS ENTERED

PREPARED BY J Smith DATE 6/23/77

APPROVED BY ______________ DATE __/__/__

WADC010 WAQC.108

MODEL STATE INFORMATION SYSTEM

WATER QUALITY COMPLIANCE SUBSYSTEM

CHEMICAL OR RADIOLOGICAL ANALYSIS INPUT FORM

PWS ID ☐☐☐☐☐☐☐ 1 - 7

TRANSACTION CODE 0 3 8-9

PUBLIC WATER SYSTEM NAME AND ADDRESS

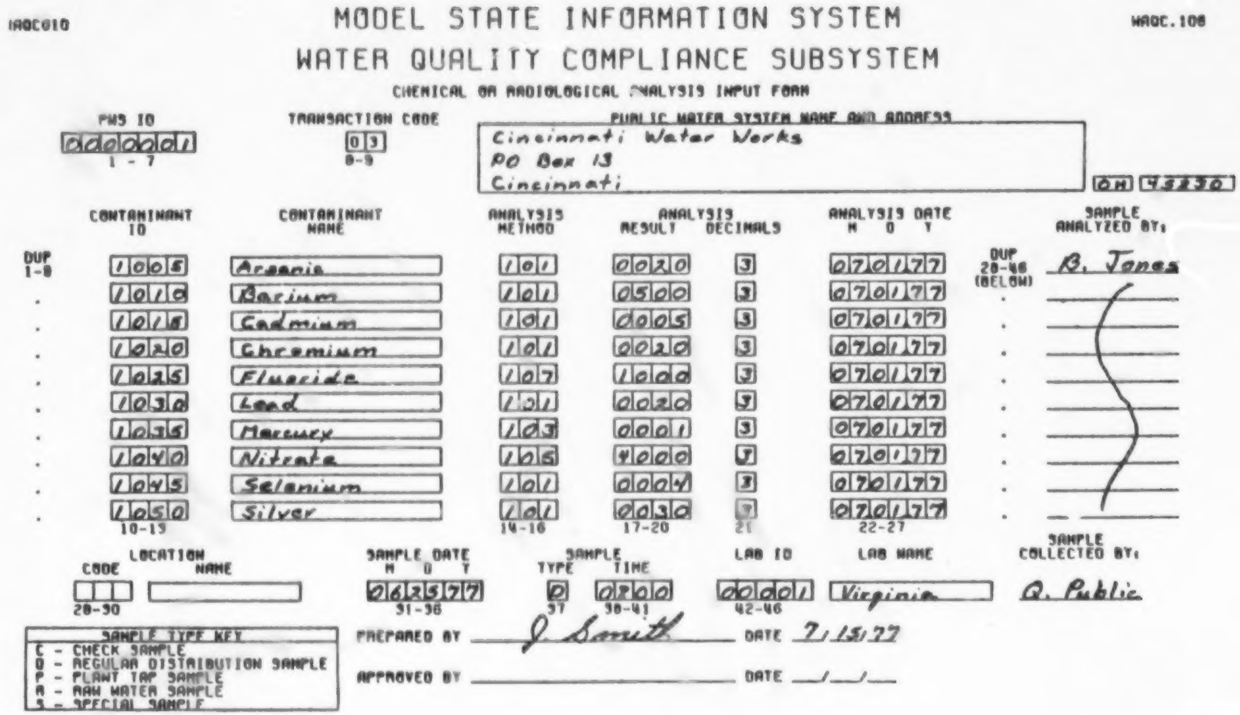
	CONTAMINANT ID	CONTAMINANT NAME	ANALYSIS METHOD	ANALYSIS RESULT	ANALYSIS DECIMALS	ANALYSIS DATE M D Y		SAMPLE ANALYZED BY:
DUP 1-9							DUP 28-46 (BELOW)	
.							.	
.							.	
.							.	
.							.	
.							.	
.							.	
.							.	
.							.	
.							.	
	10-13		14-16	17-20	21	22-27		

LOCATION CODE	LOCATION NAME	SAMPLE DATE M D Y	SAMPLE TYPE	SAMPLE TIME	LAB ID	LAB NAME	SAMPLE COLLECTED BY:
28-30		31-36	37	38-41	42-46		

SAMPLE TYPE KEY
C - CHECK SAMPLE
D - REGULAR DISTRIBUTION SAMPLE
P - PLANT TAP SAMPLE
R - RAW WATER SAMPLE
S - SPECIAL SAMPLE

PREPARED BY ______________________ DATE __/__/__

APPROVED BY ______________________ DATE __/__/__



IAQC010 WAQC.108

MODEL STATE INFORMATION SYSTEM

WATER QUALITY COMPLIANCE SUBSYSTEM

CHEMICAL OR RADIOLOGICAL ANALYSIS INPUT FORM

PWS ID 0000001 (1 - 7)

TRANSACTION CODE 03 (8-9)

PUBLIC WATER SYSTEM NAME AND ADDRESS
Cincinnati Water Works
PO Box 13
Cincinnati
OH 43230

DUP 1-9	CONTAMINANT ID (10-13)	CONTAMINANT NAME	ANALYSIS METHOD (14-16)	ANALYSIS RESULT (17-20)	ANALYSIS DECIMALS (21)	ANALYSIS DATE M D Y (22-27)	DUP 28-46 (BELOW)	SAMPLE ANALYZED BY:
	1005	Arsenic	101	0020	3	070177		B. Jones
.	1010	Barium	101	0500	3	070177	.	
.	1015	Cadmium	101	0005	3	070177	.	
.	1020	Chromium	101	0020	3	070177	.	
.	1025	Fluoride	107	1000	3	070177	.	
.	1030	Lead	121	0020	3	070177	.	
.	1035	Mercury	103	0001	3	070177	.	
.	1040	Nitrate	105	4000	3	070177	.	
.	1045	Selenium	101	0004	3	070177	.	
.	1050	Silver	101	0030	3	070177	.	

LOCATION CODE (28-30)	LOCATION NAME	SAMPLE DATE M D Y (31-36)	SAMPLE TYPE (37)	SAMPLE TIME (38-41)	LAB ID (42-46)	LAB NAME	SAMPLE COLLECTED BY:
		062577	D	0800	00001	Virginia	Q. Public

SAMPLE TYPE KEY
C - CHECK SAMPLE
D - REGULAR DISTRIBUTION SAMPLE
P - PLANT TAP SAMPLE
R - RAW WATER SAMPLE
S - SPECIAL SAMPLE

PREPARED BY J. Smith DATE 7/15/77

APPROVED BY ________ DATE __/__/__

WAQC010

MODEL STATE INFORMATION SYSTEM

WATER QUALITY COMPLIANCE SUBSYSTEM

WAQC.107

BACTERIOLOGICAL OR TURBIDITY ANALYSIS INPUT FORM

PWS ID ☐☐☐☐☐☐☐ 1 - 7

TRANSACTION CODE 0 5 8-9

PUBLIC WATER SYSTEM NAME AND ADDRESS

CONTAMINANT ID ☐☐☐☐ 10-13

CONTAMINANT NAME

DUP 1-19	METHOD	ANALYSIS RESULT	DECIMALS	ANALYSIS DATE M D Y	LOCATION CODE	LOCATION NAME	SAMPLE DATE M D Y	SAMPLE TYPE	SAMPLE TIME		SAMPLE COLLECTED BY	SAMPLE ANALYZED BY
										DUP 42-46 (BELOW)		
.										.		
.										.		
.										.		
.										.		
.										.		
.										.		
.										.		
.										.		
.										.		
	14-16	17-20	21	22-27	28-30		31-36	37	38-41			

LAB ID ☐☐☐☐☐ 42-46

LAB NAME

PREPARED BY ______________________ DATE __/__/__

APPROVED BY ______________________ DATE __/__/__

C - CHECK SAMPLE
D - REGULAR DISTRIBUTION SAMPLE
P - PLANT TAP SAMPLE
R - RAW WATER SAMPLE
S - SPECIAL SAMPLE

WAQC010 WAQC.108

MODEL STATE INFORMATION SYSTEM
WATER QUALITY COMPLIANCE SUBSYSTEM

BACTERIOLOGICAL OR TURBIDITY SUMMARY ANALYSIS INPUT FORM

PWS ID ☐☐☐☐☐☐☐ 1 - 7

TRANSACTION CODE 0 7 8-9

PUBLIC WATER SYSTEM NAME AND ADDRESS ☐ ☐ ☐

CONTAMINANT ID ☐☐☐☐ 10 - 13

CONTAMINANT NAME ☐

ANALYSIS METHOD ☐☐☐ 14-16

NUMBER OF SAMPLES REQUIRED ☐☐☐ 17-19

NUMBER OF SAMPLES TAKEN ☐☐☐ 20-22

SAMPLE ANALYSIS RESULTS

HIGHEST ☐☐☐☐ 23-26 DEC. ☐ 27

LOWEST ☐☐☐☐ 28-31 DEC. ☐ 32

AVERAGE ☐☐☐☐ 33-36 DEC. ☐ 37

NUMBER OF SAMPLES IN VIOLATION

FEDERAL MCL ☐☐☐☐ 38-41

STATE MCL ☐☐☐☐ 42-45

LONGEST VIOLATION DURATION ☐☐☐ 46-48

SAMPLE PERIOD

START M D Y ☐☐☐☐☐☐ 49-54

END M D Y ☐☐☐☐☐☐ 55-60

SAMPLE TYPE ☐ 61

DATE OF LAST SAMPLE M D Y ☐☐☐☐☐☐ 62-67

LABORATORY ANALYZING THE MOST SAMPLES

ID ☐☐☐☐☐ 68-72

NAME ☐

CHECK SAMPLES

REGULATIONS REQUIRED NUMBER TAKEN

FEDERAL ☐ 73

STATE ☐ 74

ACTUAL NUMBER TAKEN ☐☐☐ 75-77

NOTIFIED OF VIOLATIONS

PUBLIC ☐ 78

STATE ☐ 79

PREPARED BY ______________________ DATE ___/___/___

APPROVED BY ______________________ DATE ___/___/___

SAMPLE TYPE KEY
C - CHECK SAMPLE
D - REGULAR DISTRIBUTION SYSTEM
P - PLANT TAP SAMPLE
R - RAW WATER SAMPLE
S - SPECIAL SAMPLE

WAQC010 WAQC.105

MODEL STATE INFORMATION SYSTEM

WATER QUALITY COMPLIANCE SUBSYSTEM

SAMPLE DELETION TRANSACTIONS - PERIODIC SAMPLE FILE

PWS ID 1-7	CARD CODE 8-9	CONTAMINANT ID 10-13	CONTAMINANT NAME	ANALYSIS METHOD 14-16	SAMPLE KEY 17-26
	01				
	01				
	01				
	01				
	01				
	01				
	01				
	01				
	01				
	01				

PREPARED BY ______________________________ DATE ___/___/___

APPROVED BY ______________________________ DATE ___/___/___

WAQC010 WAQC.105

MODEL STATE INFORMATION SYSTEM

WATER QUALITY COMPLIANCE SUBSYSTEM

SAMPLE DELETION TRANSACTIONS - PERIODIC SAMPLE FILE

PWS ID 1-7	CARD CODE 8-9	CONTAMINANT ID 10-13	CONTAMINANT NAME	ANALYSIS METHOD 14-16	SAMPLE KEY 17-26
0000001	01	1005	Arsenic	101	7719600000
	01				
	01				
	01				
	01				
	01				
	01				
	01				
	01				
	01				

PREPARED BY J. Smith DATE 7/17/77

APPROVED BY ____________ DATE __/__/__

III.2.S20

WAQC020 WAQC.110

MODEL STATE INFORMATION SYSTEM

WATER QUALITY COMPLIANCE SUBSYSTEM

SAMPLE DELETION TRANSACTIONS - SAMPLE ANALYSIS FILE

PWS ID 1-7	CARD CODE 8-9	CONTAMINANT ID 10-13	CONTAMINANT NAME	ANALYSIS METHOD 14-16	SAMPLE KEY 17-26
	01				
	01				
	01				
	01				
	01				
	01				
	01				
	01				
	01				
	01				

PREPARED BY ______________________________ DATE ___/___/___

APPROVED BY ______________________________ DATE ___/___/___

Processing Option Input Forms

1. Identify each of the processing option input forms shown.

1. ______________________________

2. ______________________________

3. ______________________________

4. ______________________________

MØDEL STATE INFØRMATIØN SYSTEM

ØPERATØR AND MAILING SUBSYSTEM

SELECTIØN FØRM - DEFINITIØN ØF LØGIC FØR SELECTIØN

RELATIØN SYMBØLS: LT = LESS THAN GT = GREATER THAN NG = NØT GREATER THAN
EQ = EQUAL NL = NØT LESS THAN NX = NØT EXISTS (EMPTY)

CARD ID	DATA ELEMENT LØGIC ID NØ.	RELATIØN SYMBØL	DATA ELEMENT LØGIC ID NØ.	RELATIØN SYMBØL	DATA ELEMENT LØGIC ID NØ.	RELATIØN SYMBØL	DATA ELEMENT LØGIC ID NØ.	RELATIØN SYMBØL
S E L 2 1-4	01	☐☐ 5-6	02	☐☐ 7-8	03	☐☐ 9-10	04	☐☐ 11-12
	05	☐☐ 13-14	06	☐☐ 15-16	07	☐☐ 17-18	08	☐☐ 19-20
	09	☐☐ 21-22	10	☐☐ 23-24	11	☐☐ 25-26	12	☐☐ 27-28
	13	☐☐ 29-30	14	☐☐ 31-32	15	☐☐ 33-34	16	☐☐ 35-36
	17	☐☐ 37-38	18	☐☐ 39-40	19	☐☐ 41-42	20	☐☐ 43-44
	21	☐☐ 45-46	22	☐☐ 47-48	23	☐☐ 49-50	24	☐☐ 51-52
	25	☐☐ 53-54	26	☐☐ 55-56	27	☐☐ 57-58	28	☐☐ 59-60
	29	☐☐ 61-62	30	☐☐ 63-64	31	☐☐ 65-66	32	☐☐ 67-68
	33	☐☐ 69-70	34	☐☐ 71-72	35	☐☐ 73-74		

PREPARED BY ______________________ DATE __/__/__

APPROVED BY ______________________ DATE __/__/__

①

MODEL STATE INFORMATION SYSTEM

OPERATOR AND MAILING SUBSYSTEM

PROCESSING OPTIONS FOR JOB ______________

CARD ID P R O C (1-4)

DATE M D Y ☐☐☐☐☐☐ (5-10)

STANDARD ERROR PROCESSING OPTIONS:

☐ 11
Y = YES - CREATE A SPECIAL OUTPUT FILE OF ERROR RECORDS
N = NO - DO NOT CREATE A SPECIAL OUTPUT FILE

☐ 12
Y = YES - PRINT ONLY THE DATA ELEMENT FIELDS WHICH WERE
N = NO . IN ERROR - NOT THE ENTIRE RECORD

STANDARD HISTORY PROCESSING OPTION:

☐ 13
SELECT THE CODE FOR THE TYPE OF HISTORY REPORT TO BE PRINTED
1 = ONLY NEW STANDARD HISTORY FILE RECORDS
2 = ALL THE STANDARD HISTORY FILE RECORDS WHICH WERE EVER CREATED FROM THIS SUBSYSTEM
3 = THE ENTIRE STANDARD HISTORY FILE
4 - DO NOT PRINT A REPORT

②

PREPARED BY ______________________ DATE __/__/__

APPROVED BY ______________________ DATE __/__/__

OPER020 OPER.104

MODEL STATE INFORMATION SYSTEM
OPERATOR AND MAILING SUBSYSTEM

SELECTION FORM - DEFINITION OF DATA ELEMENTS

CARD ID	DATA ELEMENT MNEMONIC NAME	DATA ELEMENT COMPARATIVE VALUE	DATA ELEMENT LOGIC ID NO.
S E L 1	☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐
1-4	5-14	15-29	30-31
DUP 1 - 4	☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐
.	☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐
.	☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐
.	☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐
.	☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐
.	☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐
.	☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐
.	☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐
.	☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐
.	☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐
.	☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐
.	☐☐☐☐☐☐☐☐☐☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	☐☐

III.1.E1

③

PREPARED BY ______________________ DATE __/__/__

APPROVED BY ______________________ DATE __/__/__

OPER020 OPER.103

MODEL STATE INFORMATION SYSTEM
OPERATOR AND MAILING SUBSYSTEM

SORT OPTIONS FOR JOB ________________

CARD ID	SORT SEQUENCE	MNEMONIC NAME OF DATA ELEMENT	SORT MODE	
S O R T 1-4	☐☐ 5-6	☐☐☐☐☐☐☐☐☐☐ 7-16	☐ 17	A=ASCENDING D=DESCENDING
	☐☐ 18-19	☐☐☐☐☐☐☐☐☐☐ 20-29	☐ 30	A=ASCENDING D=DESCENDING
	☐☐ 31-32	☐☐☐☐☐☐☐☐☐☐ 33-42	☐ 43	A=ASCENDING D=DESCENDING
	☐☐ 44-45	☐☐☐☐☐☐☐☐☐☐ 46-55	☐ 56	A=ASCENDING D=DESCENDING
	☐☐ 57-58	☐☐☐☐☐☐☐☐☐☐ 59-68	☐ 69	A=ASCENDING D=DESCENDING

④

PREPARED BY ______________________________ DATE ___/___/___

APPROVED BY ______________________________ DATE ___/___/___

Processing Option Input Forms

1. Match each function with the appropriate processing option input form.

1. SEL2 ____________________
2. PROC ____________________
3. SEL1 ____________________
4. SORT ____________________

a. Used to specify a desired sequence of records.
b. Used to specify the logic for selection.
c. Used to initiate a program and specify the date of the report.
d. Used to define data elements for selection of records.

III.1.E3

Table Creation (MSIS)

1. State the purpose of the Error Message Table Input Form. ____________

____

____

Circle the best valid entries.

A.	AAA	INVALID-RECORD-ID
B.	001	REJECT-INVALID RECORD-ID
C.	011	REJECTED
D.	107	WARNING-DATA ELEMENT MISSING

Estimate the frequency of use, by circling one of the following.

Often Occasionally Seldom Never

2. State the purpose of the Data Element Table Input Form. ____________

____

____

Circle the letter of the group of the best valid entries.

A.	LB	319	96	0096	81	81	LB-ID	N
B.	OM	490	22	0133	06	01	TRANSACTION	Y
C.	PH	310	00	0001	00	07	PH-PWS-ID	Y
D.	NO	310	91	0091	01	01	PW-ID	N

Estimate the frequency of use by circling one of the following:

Often Occasionally Seldom Never

3. State the purpose of the Code Value Table Input Form. ____________

____

____

Circle the letter of the group of best valid entries.

A.	LB	809	001	3	NEPHELOMETRIC
B.	02	321	P	1	PUBLIC WATER SUPPLY
C.	MS	ABC	0100	4	TURBIDITY
D.	OM	479	1	2	PUBLIC WATER SYSTEM - COM

Estimate the frequency of use by circling one of the following.

Often Occasionally Seldom Never

MSIS030

MODEL STATE INFORMATION SYSTEM

MSIS.102

STANDARD PROCESSING SUBSYSTEM

ERROR MESSAGE TABLE INPUT FORM

CARD ID	FILE ID	ERROR CODE	ERROR MESSAGE
1 1	MS 2-3	☐☐☐ 4-6	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ 7-34
		☐☐☐ 35-37	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ 38-65
DUP 1-3		☐☐☐ 4-6	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ 7-34
		☐☐☐ 35-37	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ 38-65
DUP 1-3		☐☐☐ 4-6	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ 7-34
		☐☐☐ 35-37	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ 38-65
DUP 1-3		☐☐☐ 4-6	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ 7-34
		☐☐☐ 35-37	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ 38-65
DUP 1-3		☐☐☐ 4-6	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ 7-34
		☐☐☐ 35-37	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ 38-65

PREPARED BY ______________________ DATE __/__/__

APPROVED BY ______________________ DATE __/__/__

III.1.E3

MSIS030 MSIS.104

MODEL STATE INFORMATION SYSTEM

STANDARD PROCESSING SUBSYSTEM

DATA ELEMENT TABLE INPUT FORM

CARD ID	FILE ID	D.E. CATALOGUE NUMBER	START POSITION TRANSACTION /	FILE	D.E. LENGTH	D.E. INPUT LENGTH	MNEMONIC NAME	HISTORY KEPT	
3	☐☐	☐☐☐	☐☐	☐☐☐☐	☐☐	☐☐	☐☐☐☐☐☐☐☐☐☐	☐	Y=YES N=NO
1	2-3	4-6	7-8	9-12	13-14	15-16	17-26	27	
DUP 1	☐☐	☐☐☐	☐☐	☐☐☐☐	☐☐	☐☐	☐☐☐☐☐☐☐☐☐☐	☐	Y=YES N=NO
.	☐☐	☐☐☐	☐☐	☐☐☐☐	☐☐	☐☐	☐☐☐☐☐☐☐☐☐☐	☐	Y=YES N=NO
.	☐☐	☐☐☐	☐☐	☐☐☐☐	☐☐	☐☐	☐☐☐☐☐☐☐☐☐☐	☐	Y=YES N=NO
.	☐☐	☐☐☐	☐☐	☐☐☐☐	☐☐	☐☐	☐☐☐☐☐☐☐☐☐☐	☐	Y=YES N=NO
.	☐☐	☐☐☐	☐☐	☐☐☐☐	☐☐	☐☐	☐☐☐☐☐☐☐☐☐☐	☐	Y=YES N=NO
.	☐☐	☐☐☐	☐☐	☐☐☐☐	☐☐	☐☐	☐☐☐☐☐☐☐☐☐☐	☐	Y=YES N=NO
.	☐☐	☐☐☐	☐☐	☐☐☐☐	☐☐	☐☐	☐☐☐☐☐☐☐☐☐☐	☐	Y=YES N=NO
.	☐☐	☐☐☐	☐☐	☐☐☐☐	☐☐	☐☐	☐☐☐☐☐☐☐☐☐☐	☐	Y=YES N=NO
.	☐☐	☐☐☐	☐☐	☐☐☐☐	☐☐	☐☐	☐☐☐☐☐☐☐☐☐☐	☐	Y=YES N=NO
.	☐☐	☐☐☐	☐☐	☐☐☐☐	☐☐	☐☐	☐☐☐☐☐☐☐☐☐☐	☐	Y=YES N=NO

PREPARED BY ______________________ DATE __/__/__

APPROVED BY ______________________ DATE __/__/__

MSIS030

MODEL STATE INFORMATION SYSTEM

MSIS.103

STANDARD PROCESSING SUBSYSTEM

CODE VALUE TABLE INPUT FORM

CARD ID	FILE ID	D.E. CATALOGUE NUMBER	D.E. VALUE	D.E. LENGTH	D.E. DESCRIPTION
2	☐☐	☐☐☐	☐☐☐☐☐☐☐☐☐	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
1	2-3	4-6	7-15	16	17-46
DUP 1-3		☐☐☐	☐☐☐☐☐☐☐☐☐	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.		☐☐☐	☐☐☐☐☐☐☐☐☐	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.		☐☐☐	☐☐☐☐☐☐☐☐☐	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.		☐☐☐	☐☐☐☐☐☐☐☐☐	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.		☐☐☐	☐☐☐☐☐☐☐☐☐	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.		☐☐☐	☐☐☐☐☐☐☐☐☐	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.		☐☐☐	☐☐☐☐☐☐☐☐☐	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.		☐☐☐	☐☐☐☐☐☐☐☐☐	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.		☐☐☐	☐☐☐☐☐☐☐☐☐	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.		☐☐☐	☐☐☐☐☐☐☐☐☐	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
.		☐☐☐	☐☐☐☐☐☐☐☐☐	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

PREPARED BY ______________________ DATE __/__/__

APPROVED BY ______________________ DATE __/__/__

III.1.E4

Table Creation (WAQC)

WAQC.101 & WAQC.102

1. State the purpose of the Laboratory Table Input Forms. ______________

____

____

Circle the letter of the group of best valid entries on WAQC.101.

A.	00001	A	LAB OF DENVER	006178
B.	A1234	0	OHIO STATE LAB	062478
C.	16891	B	COMMONWEALTH OF VIRGINIA STATE LAB	07/01/79
D.	1256	1	OTHER	121578

Circle the letter of the group of best valid entries on WAQC.102.

A.	00001	5	111
B.	A268	4	689
C.	10006	0	26
D.	10001	1	001

Estimate the frequency of use by circling one of the following.

Often Occasionally Seldom Never

WAQC210

MODEL STATE INFORMATION SYSTEM

WAQC.101

WATER QUALITY COMPLIANCE SUBSYSTEM

PAGE 1

LABORATORY TABLE INPUT FORM

LAB ID		OWNER TYPE	LABORATORY NAME
☐☐☐☐☐	9	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
1-5	6	7	8 - 37

EXPIRATION DATE
M D Y
☐☐☐☐☐☐
38-43

CARD CODE: L 1
79-80

PREPARED BY ____________________ DATE ___/___/___

APPROVED BY ____________________ DATE ___/___/___

III.1.E4

WAQC210 WAQC.102

MODEL STATE INFORMATION SYSTEM
WATER QUALITY COMPLIANCE SUBSYSTEM
LABORATORY TABLE INPUT FORM

LAB ID	CONTAMINANT GROUP
☐☐☐☐☐ 1-5	☐ 6

AUTHORIZED ANALYSIS METHOD CODES

☐☐☐ 7-9	☐☐☐ 10-12	☐☐☐ 13-15	☐☐☐ 16-18	☐☐☐ 19-21	☐☐☐ 22-24	☐☐☐ 25-27	☐☐☐ 28-30	☐☐☐ 31-33	☐☐☐ 34-36
☐☐☐ 37-39	☐☐☐ 40-42	☐☐☐ 43-45	☐☐☐ 46-48	☐☐☐ 49-51	☐☐☐ 52-54	☐☐☐ 55-57	☐☐☐ 58-60	☐☐☐ 61-63	☐☐☐ 64-66
☐☐☐ 67-69	☐☐☐ 70-72	☐☐☐ 73-75	☐☐☐ 76-78						

CONTAMINANT GROUP CODES

0 - TURBIDITY
1 - INORGANIC CHEMICALS
2 - ORGANIC CHEMICALS
3 - MICROBIOLOGICAL
4 - RADIONUCLIDE
8 - OTHER

CARD CODE: L 2
79-80

PREPARED BY ______________________ DATE __/__/__

APPROVED BY ______________________ DATE __/__/__

Table Creation (REGS)

1. Name the five Regulations File input forms for contaminants.

____

____

____

____

____

2. Name the three other Regulations File input forms designed for special conditions of certain contaminants. ______________________________

____

____

3. Estimate the frequency of use of the Regulations File input forms by circling one of the following.

Often Occasionally Seldom Never

Table Creation (REGS)

1. Specify the purpose of the Regulations File input forms for contaminants. ______________________________

2. Explain the purpose of the Regulations File input forms for special conditions. ______________________________

Record Creation and Maintenance Forms

1. Identify the five Record Creation and Maintenance Forms by the subsystem in which they are used.

   ____

   ____

   ____

   ____

   ____

2. List the three basic sections of the Record Creation and Maintenance Forms by the function to be performed.

   ____

   ____

   ____

3. What is the common characteristic of all Record Creation and Maintenance Forms and why?

   ____

   ____

   ____

Water Quality Transactions Input Forms

1. Identify the five Water Quality Transactions input forms.

2. List the two basic types of Water Quality Transactions input forms by the function they perform.

3. How do the functions of the Water Quality Transactions input forms differ from those for the Record Creation and Maintenance forms?

4. Why is summary information allowed for Bacteriological and Turbidity analysis data?

Processing Option Input Forms

1. Identify each of the processing option input forms shown.

   1. SEL2
   2. PROC
   3. SEL1
   4. SORT

Processing Option Input Forms

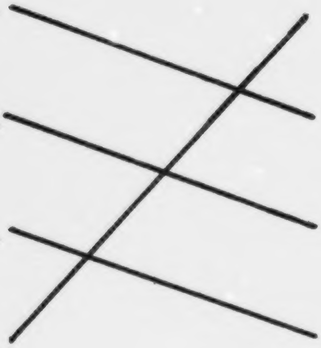
1. Match each function with the appropriate processing option input form.

1. SEL2 ______

2. PROC ______

3. SEL1 ______

4. SORT ______



a. Used to specify a desired sequence of records.

b. Used to specify the logic for selection.

c. Used to initiate a program and specify the date of the report.

d. Used to define data elements for selection of records.

III.1.A3

Table Creation (MSIS)

1. State the purpose of the Error Message Table Input Form. to define and enter error codes with error messages.

Circle the best valid entries.

A. AAA INVALID-RECORD-ID

B. 001 REJECT-INVALID RECORD-ID

C. 011 REJECTED

[✓ D.] 107 WARNING-DATA ELEMENT MISSING

Estimate the frequency of use, by circling one of the following.

Often Occasionally [✓ Seldom] Never

2. State the purpose of the Data Element Table Input Form. to define and enter data element mnemonic names with the file(s) used on, catalogue number, the file and transaction starting positions and lengths, and whether or not history records should be maintained.

Circle the letter of the group of the best valid entries.

A.	LB	319	96	0096	81	81	LB-ID	N
B.	OM	490	22	0133	06	01	TRANSACTION	Y
[✓ C.]	PH	310	00	0001	00	07	PH-PWS-ID	Y
D.	NO	310	91	0091	01	01	PW-ID	N

Estimate the frequency of use by circling one of the following:

Often Occasionally [✓ Seldom] Never

3. State the purpose of the Code Value Table Input Form. to define and enter data elements by catalogue number with file(s), valid value(s)

Circle the letter of the group of best valid entries.

[✓ A.]	LB	809	001	3	NEPHELOMETRIC
B.	02	321	P	1	PUBLIC WATER SUPPLY
C.	MS	ABC	0100	4	TURBIDITY
D.	OM	479	1	2	PUBLIC WATER SYSTEM - COM

Estimate the frequency of use by circling one of the following.

Often Occasionally [✓ Seldom] Never

Table Creation (WAQC)

WAQC.101 & WAQC.102

1. State the purpose of the Laboratory Table Input Forms. to define and enter approved laboratory identifications with the type of owner, name, effective period, the contaminants it is approved to analyze for, and the methods it has been approved to use.

Circle the letter of the group of best valid entries on WAQC.101.

A.	00001	A	LAB OF DENVER	006178
[✓ B.]	A1234	0	OHIO STATE LAB	062478
C.	16891	B	COMMONWEALTH OF VIRGINIA STATE LAB	07/01/79
D.	1256	1	OTHER	121578

Circle the letter of the group of best valid entries on WAQC.102.

A.	00001	5	111
B.	A268	4	689
C.	10006	0	26
[✓ D.]	10001	1	001

Estimate the frequency of use by circling one of the following.

Often [✓ Occasionally] Seldom Never

Table Creation (REGS)

1. Name the five Regulations File input forms for contaminants.

Bacteriological Contaminant Input Form

Turbidity Contaminant Input Form

Chemical Contaminant Input Form

Gross Alpha Radionuclide Contaminant Input Form

Gross Beta Radionuclide Contaminant Input Form

2. Name the three other Regulations File input forms designed for special conditions of certain contaminants. Population Table for Bacteriological Sampling Input Form, Fluoride MCL Table Input Form, Major Beta Emitter Table Input Form.

3. Estimate the frequency of use of the Regulations File input forms by circling one of the following.

Often Occasionally [✓ Seldom] Never

Table Creation (REGS)

1. Specify the purpose of the Regulations File input forms for contaminants. to define and enter contaminant MCL's and sampling frequencies under the various conditions specified in the federal and/or State regulations.

2. Explain the purpose of the Regulations File input forms for special conditions. to define and enter the relationships between: the population served by a PWS and the required sampling frequency for Bacteriological contaminant(s); the annual average of maximum daily air temperatures and the Fluoride MCL; and the major beta emitters and their annual concentrations equivalent to the Gross Beta MCL and their concentrations which can be counted with a precision of plus or minus 100% at the 95% confidence level.

Record Creation and Maintenance Forms

1. Identify the five Record Creation and Maintenance Forms by the subsystem in which they are used.

PWSI

WAQC

VAEX

ENAC

OPER

2. List the three basic sections of the Record Creation and Maintenance Forms by the function to be performed.

add

change

delete

3. What is the common characteristic of all Record Creation and Maintenance Forms and why?

PWS-ID; to associate information on various files to the respective public water systems to which it relates.

Water Quality Transactions Input Forms

1. Identify the five Water Quality Transactions input forms.

Sample Deletion Transactions - PSF

Sample Deletion Transactions - SAF

Bacteriological or Turbidity Analysis Input Form

Bacteriological or Turbidity Analysis Summary Input Form

Chemical or Radiological Analysis Input Form

2. List the two basic types of Water Quality Transactions input forms by the function they perform.

add

delete

3. How do the functions of the Water Quality Transactions input forms differ from those for the Record Creation and Maintenance forms?

The Record Creation and Maintenance Forms allow changes to existing records on the file and Water Quality Transaction records must be completely deleted and re-entered to be corrected.

4. Why is summary information allowed for Bacteriological and Turbidity analysis data?

The federal regulations require public water systems to report summary analysis information under certain conditions for these two contaminants due to the large volume of this information.

III.2.T1
31T1
(1-4)

POST-TEST

DATA ENTRY

Name:______________________________ Postal Code ______ Date ____/____/____
(5-30) (31-2) Month Day Year
(33-8)

1. Match the following functions with their appropriate subsystems:

Subsystem	Function
a. Regulations	(39) ___Maintains information on PWS's that have special conditions
b. Enforcement Actions	
c. Water Quality Compliance	(40) ___Does the checking on the analyses of water quality
d. Variances & Exemptions	
e. Standard Processing	(41) ___Maintains information on the activities ensuring compliance
	(42) ___Gives the computer information to determine violations
	(43) ___Performs common functions among subsystems

2. Match the types of input forms with their function:

Form	Function
a. Processing option	(44) ___Enters PWS-related data to files
b. Table creation	(45) ___Enters data to MSIS tables
c. Record creation & maintenance	(46) ___Enters sample and analysis data
	(47) ___Enables the user to specify a needed PWS listing
d. Water quality transactions	(48) ___Enables the user to specify needed reports

3. Circle the abbreviations for the 5 subsystems which have Record creation and maintenance input forms:

(49) a. BIPS
(50) b. WAQC
(51) c. OPER
(52) d. LIMT
(53) e. FEDR
(54) f. VAEX
(55) g. REGS
(56) h. ENAC
(57) i. SRVY
(58) j. MSIS
(59) k. PWSI
(60) l. QUAL

4. Circle T (True) or F (False) for each of the following statements:

T F (61) "SORT" is a processing option input form used to specify desired sequence of records for output.

T F (62) "SEL2" is a processing option input form used to initiate a program.

T F (63) "SEL1" is the processing option input form used to select records from MSIS files.

T F (64) A program run cannot be initiated without using a "PROC" form.

T F (65) The Laboratory input form is seldom used because the laboratory table is supplied by MSIS.

T F (66) A State used the Code Value Table input form to enter its own acceptable data element values.

T F (67) The Data Element Table input form is used to enter a detailed description of information about a data element.

T F (68) A Record Creation and Maintenance input form is used to change PWS data.

T F (69) Water Quality Transactions input forms are used either to add or to delete sample and analysis data.

T F (70) The records on the Periodic Sample File and Sample Analysis File can be changed without deleting the entire record.

5. The Data Element Table input form cannot be used to identify which of the following:

(71) a. Which file used in
(72) b. New error code
(73) c. Name for field
(74) d. New catalogue number

6. Check the Water Quality Transaction input forms:

(75) a. ____Bacteriological or Turbidity Analysis
(76) b. ____Inorganic Chemical Contaminant
(77) c. ____Chemical or Radiological Analysis
(78) d. ____Sample Deletion Transactions
(79) e. ____Physical Contaminant Summary

7. Rate your current level of knowledge about MSIS: (Circle one)

(80)None (81)A little (82)Some (83)Quite a bit (84)A great deal

MODEL STATE INFORMATION SYSTEM

PART IV

COURSE REFERENCE MATERIAL

GLOSSARY

Terms are included in this glossary only if their meanings differ from those found in a standard English language dictionary.

Analysis:

The separation of any abstract entity or material into its constituant elements, such as chemical-intentionally produced decomposition or separation of materials into their ingredients to find their kind or quality.

Analysis Method:

The method or technique utilized to obtain analysis results.

Analytical Techniques:

The methods used to determine the components of a substance, especially raw water.

Batch Processing:

A procedure in which a number of transactions, for example on keypunched cards, are accumulated before being processed together.

Check Sampling:

The act of acquiring additional quantities of water for analysis over and above the regular samples due to the suspicion of violating maximum contaminant levels.

Code:

A system used for brevity of communication in which arbitrarily chosen words, letters, or symbols are assigned definite meanings.

Computer:

A machine which accepts input data, processes it, and gives output data.

Computer Program:

A sequence of computer-readable instructions used in conjunction with appropriate data to perform specified logical tasks.

Correction:

Additions, subtractions, or changes to a computer file.

Course:

All content taught in one individual MSIS training program volume. A course is subdivided into units.

Data:

Raw facts or statistics which alone have little or no meaning, but as a group allow some meaningful relationships to be drawn.

Data Element:

An identifiable item of information within a record. See the Data Element Dictionary for all data elements used in MSIS.

Data Processing:

The act of manipulating information to obtain a desired result, especially with the use of a computer.

Economical:

Of or pertaining to the financial reasons for granting variances and exemptions.

Enforcement:

The act of creating and maintaining compliance using coercive methods.

Enforcement Action:

An act intended to generate compliance.

Exemption:

Authorized waiver of an MCL requirement due to compelling factors, such as need for a PWS to design and build effective treatment facilities.

Field:

See data element.

File:

A collection of records systematically arranged to facilitate quick reference; may be stored on magnetic tape or magnetic disc.

Goal:

A general achievement toward which effort is directed.

Gross Alpha:

A group of substances which emit Alpha particle radiation.

Gross Beta:

A group of substances which emit Beta particle radiation.

Hardware:

The physical equipment in a data processing system (contrasted with software).

Information:

Data that has been processed to obtain specific results which increase knowledge of the recipient and is used as the basis for decision making.

Inorganic:

Of or pertaining to substances that are not hydrocarbons or their derivatives.

Input:

Information which is specially prepared for acceptance by computer programs. Usually written down on special forms, then put into machine-readable form by, for example, keypunching.

Integrity:

Presumed reliability of data.

Internal:

Data processing occurring within the computer automatically according to instructions from computer programs.

Inventory:

A detailed, descriptive list, for example, of Public Water Systems.

Magnetic Disc:

A device which stores data on the magnetizable surfaces of one or more rotating discs, which look like a stack of phonograph records.

Magnetic tape:

A device which stores data on the magnetizable surface of a long strip of tape (the tape is typically 1 inch wide and 2400 feet long).

Maintain:

Actions taken to ensure up-to-date computer files.

Management Information System:

An organized method of maintaining facts pertinent to the governing of the operations of an organization.

Model State Information System:

(MSIS) a batch computer system designed to (1) maintain records on public water systems and the quality of the water they supply, and (2) prepare reports.

Monitor:

The acts of (1) a PWS observing and checking water quality or (2) a State observing and checking PWSs.

National Inventory File:

A computerized list of many public water systems in the United States; previously used to monitor water quality.

Objective:

A specific achievement that efforts are intended to attain.

Online Processing:

A procedure for inputting data computer whenever needed for immediate data processing, often by typewriter terminal.

Operator:

One who runs a public water system.

Organic:

Of or pertaining to substances that are hydrocarbons or their derivatives.

Output:

Any information passed from the computer.

Primacy:

Primary enforcement responsibility for carrying out the Safe Drinking Water Act of 1974.

Public Water System (PWS):

A set of components for the provision of piped water to persons for human consumption, if such facility has at least fifteen service connections or regularly serves at least twenty-five individuals 60 or more days per year.

Purge:

To remove from a computer those items no longer desired.

Raw Water:

Water at the source before any treatment.

Record:

A logical group of data elements.

Regulations:

Rules created by EPA within the guidelines established by the SDWA and having the same authority.

Report:

Information formatted by the computer in either human-readable form (such as a printed report) or machine-readable form (such as a magnetic tape).

Sample:

A portion of the whole to represent the whole, especially water.

Sanitary Survey:

An on-site review of the water source, facilities, equipment, operation, and maintenance of a public water system for the purpose of evaluating the adequacy of such source for producing and distributing safe drinking water.

Selection Process:

The method used by MSIS for selecting information from a computer file for use in a report. Many different criteria can be used in the selection of the data.

Software:

The computer programs required for the computer to work.

Subsystem:

A subset of the MSIS computer system. There are nine MSIS subsystems.

System:

A method or methods of accomplishing a function or functions, especially with a computer.

Table:

A computer file of brief information usually set up in logical relationships to permit quick access, often on magnetic disc.

Turnaround Document:

A form containing computer-printed information which needs additional information written on it; called "turnaround" since it is both an output and an input.

Unit:

A subset of teaching material within a course.

Variance:

Authorized deviation from an applicable national drinking water regulation because characteristics of the raw water source cannot be corrected by available means.

List of Abbreviations

Abbreviation	Meaning
BIP	Background Informational Package
CVT	Code Value Table
DET	Data Element Table
DVF	Deviations File
EAF	Enforcement Actions File
EMT	Error Message Table
ENAC	Enforcement Actions Subsystem
EPA	Environmental Protection Agency
FEDR	Federal Reporting Subsystem
LBT	Laboratory Table
MCL	Maximum Contaminant Level
MSIS	Model State Information System; also MSIS Standard Processing Subsystem
NIF	National Inventory File
NIPDWR	National Interim Primary Drinking Water Regulations
OMF	Operator and Mailing File
OPER	Operator and Mailing Subsystem
OWS	Office of Water Supply
PSF	Periodic Sample and Analysis File
PWF	Public Water System File
PWS	Public Water System
PWSI	Public Water System Inventory Subsystem
PWT	Public Water System Table
REGS	Regulations Subsystem

RGF	Regulations File
SAF	Sample and Analysis File
SDWA	Safe Drinking Water Act
SHF	MSIS Standard History File
SRVY	Sanitary Survey Subsystem
VAEX	Variances and Exemptions Subsystem
VEF	Variances and Exemptions File
VIF	Violations File
WAQC	Water Quality Compliance Subsystem

ANNOTATED BIBLIOGRAPHY

Bolton, Charles K., and Boyer, Ronald K., *One-Way and Two-Way Communication in the Classroom*. Institute for Research and Training in Higher Education, University of Cincinnati, Cincinnati, Ohio, September 20, 1971.

Both types of communication are compared. Differences in the process of communication in each instance are compared. The relationship to teaching and psychological size is made, and the teacher's individual style and experimental new behavior are discussed.

Cushman, Frank, *Training Procedures*. Wiley and Sons, Inc., New York, 1943.

Four common fallacies of training packages are given. He lists and briefly describes sixteen training methods and devices.

Davis, Larry N., and McCallon, Earl, *Planning, Conducting and Evaluating Workshops*. Learning Concepts, 1974.

This book tends to be very perscriptive - almost a check list of do's and don'ts for conducting workshop sessions. It is not theoretical but should make a handy reference for quick review during any workshop phase - planning, conducting, or evaluating.

Davis, R.H., Alexander, L.T., and Yelon, S.L., *Learning System Design: An Approach to the Improvement of Instruction*. McGraw Hill Book Co., New York, 1974.

A good overview of instructional systems design. An orientation is not provided to any particular content area but the general approach to systems design is presented. Individuals must apply the information to their specific needs. The semi-programmed text, with sensible definitions, is easy to read.

Dubin, Robert, and Taveggia, Thomas C., *The Teaching-Learning Paradox*. University of Oregon, Eugene, Oregon, 1968.

The literature dealing with comparative studies of teaching techniques from 1924 to 1965 is covered. Comparisons are made on face-to-face methods (discussion, lecture, and combinations) and both supervised and unsupervised self-study. An important conclusion was reached that in no instance were significant differences in teaching methods found when results were measured by final examinations on course content.

Emerson, Lynn A., How to Prepare Training Manuals. University of the State of New York, Albany, New York, 1952.

Eight steps in the process of developing instructional materials are outlined along with six basic principles of learning. A useful aspect that is described are eight good, basic teaching practices which should be implemented in any teaching method.

Glaser, Robert, Training Research and Education. Wiley and Sons, Inc., New York, 1962.

Goldstein, Irwin L., Training: Program Development and Evaluation. Brooks/Cole Publishing Company, Monterey, California, 1974.

The advantages and disadvantages of practically every type of training method - lecture, on-the-job training (OJT) simulation, games, laboratory, films, TV, etc, are discussed. The preconditions for training, requisites for maximum transfer of training, and trainee motivation are covered thoroughly and in great detail. Actual studies are cited to substantiate statements. This text provides a good overview of the training process (from assessing instructional needs, deriving objectives selecting training media, conducting training, developing criteria, pretesting, monitoring training, evaluating training, to evaluating transfer of training). A section on behavioral objectives, listing five characteristics, is provided.

Grasha, Anthony F., Developing Alternative Teaching Methods Through An Analysis of Instructional Goals. Institute for Research and Training in Higher Education, University of Cincinnati, Cincinnati, Ohio, February 15, 1974.

This text provides a practical and simple approach which allows one to design a course (or training package) which is compatible with one's goals. A distinction between content and non-content goals is made and a summary is given of eight common course designs.

Knowles, Malcom S., The Modern Practice of Adult Education. Association Press, New York, 1972.

The following assumptions about adults are made: they are moving from dependent to a self-directed state; they have a large body of experience to draw on in their learning; they tend to be problem centered. These assumptions, together with suggestions on diagnosis versus evaluation and learning environment, should be helpful in establishing a relationship between the trainer and adult trainee that is conducive to learning.

McKeachie, Wilbert J., *Teaching Tips: A Guidebook for the Beginning College Teacher*. Lexington, Mass., D. C. Heath, 1969. Although designed for the new college teacher, much practical material on dealing with people in the "here and now" of the training environment is presented. The direct approach used here makes easy reading and a quick reference guide. Citations identify the literature that is appropriate to each area discussed.

EXTRACTS FROM
MSIS DOCUMENTS

IX. Summary of Data Requested to be Reported to EPA

If any of the following data is missing or incorrect upon editing during the Data Entry and Update program of any subsystem, a Standard Warning Report will be printed noting the error.

A. Public Water Supply Inventory Data

Data Element COBOL Programming Name	Data Element Catalogue No.
PWF-ID	145
PWF-PLANT-OWNER-NAME	146
PWF-PLANT-STREET	147
PWF-PLANT-CITY	148
PWF-PLANT-STATE	149
PWF-PLANT-ZIP-CODE	150
PWF-PLANT-CONSECUTIVE-NUM-PWS	180
PWF-PLANT-INTERSTATE-CARRIER	181
PWF-PLANT-POPULATION-SERVED	183
PWF-PLANT-SERVICES-NUMBER	184
PWF-PLANT-AVERAGE-PRODUCTION	186
PWF-PLANT-DESIGN-CAPACITY	187
PWF-PLANT-ACTIVITY	194
PWF-PLANT-DEACTIVATION-DATE	195
PWF-PLANT-DEACTIVATION-REASON	196
PWF-STATE-POSTAL-CODE	198
PWF-STATE-REGULATED-BY	199
PWF-STATE-CHLORINE	210
PWF-STATE-TURBIDITY-UNITS	212
PWF-STATE-AIR-TEMPERATURE	217
PWF-STATE-RADIOACTIVE-FLAG	219
PWF-OWNER-TYPE	237
PWF-PLANT-SOURCE-NAME	243
PWF-PLANT-SOURCE-CODE	244
PWF-PLANT-SELLER-ID	250
PWF-PLANT-CONSEC-INDICATOR	701

B. Violation Data

Data Element COBOL Programming Name	Data Element Catalogue No.
VIF-PWS-ID	326
VIF-CONTAMINANT-ID	331
VIF-ANALYSIS-RESULT	339
VIF-VIOLATION-TYPE	343
VIF-VIOLATION-DATE	344
VIF-MCL-VIOLATED	345

C. Variance and Exemption Data

Data Element COBOL Programming Name	Data Element Catalogue No.
VEF-PWS-ID	457
VEF-VE-TYPE	458
VEF-CONTAMINANT-ID	462
VEF-MODIFIED-MCL	463

D. Enforcement Action Data

Data Element COBOL Programming Name	Data Element Catalogue No.
EAF-CASE-ID	430
EAF-ACTION-DATE	433
EAF-CLOSE-OPEN-INDIC	434
EAF-PLAINTIFF-TYPE	435
EAF-DEFENDANT-TYPE	437
EAF-PWS-ID	443
EAF-PWS-STATE	444
EAF-LEGAL-STATUS	449
EAF-LAST-UPDATE-DATE	450

Input Forms

Subsystem	Processing Options															
	PROC. Prog.	No.	SORT Prog.	No.	SEL1 Prog.	No.	SEL2 Prog.	No.	Table Creation Prog.	No.	Record Creation Prog.	No.	Water Quality Prog.	No.	Scheduling Prog.	No.
PSWI	010	111	030 - 080	100	020 & 080	107	020 & 080	108			010	114				
	020 - 050	113														
	060	110														
	070	106					RESTART 125									
	080	101														
	090	103														
	120 - 130	101														
WAQC	010 & 020	103	011	104	100 & 125	116	100 & 125	117	210	101	120	119	010	106	130	124
	011 & 125	111	040 - 113	113						102		120		107		
	025	121												108		
	040	112												105		
	100	115										020		110		
	120	118														
	130	114														
	210	100														
	220	113														
REGS	010	199							010	101						
	020	109								102						
										103						
										104						
										105						
										106						
										107						
										108						
VAEX	010	102	040	103	040	105	040	106			010	100				
												101				
												107				
SRVY	010	100	010	101												
ENAC	010	100	020	106	020	107	020	108			010	101				
	020	105										102				
												103				
												104				
OPER	010	101	020	103	020	104	020	105			010	100				
	020	102														
MSIS	030 & 040	101	040	108	040	106	040	107	030	102						
	050	100								103						
										104						
FEDR	010	100														
TOTALS	32	26	22	7	8	6	8	6	3	13	5	11	2	5	1	1

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         REGS020                      1 of 1
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RGF Report Module
        SouthWestern Ohio Regional Computer Center
EXHIBIT REGS.301


                                           MODEL STATE INFORMATION SYSTEM
                                               REGULATIONS SUBSYSTEM
REGS020
                                       REGULATIONS REPORT - CHEMICAL CONTAMINANTS                    PAGE 88889
DATE XX/XX/XX

   CONTAMINANT ID         REGULATION/LEVEL           CHEMICAL NAME         REASON FOR MONITORING

      9999                       XX                   XXXXXXXXXXX                   X
                                                                                     NUMBER OF CHECK SAMPLES
     MCL UNITS           MCL           MCL DECIMALS           REASONABLE BOUNDS      REQUIRED IF REGULAB
                                                      LOWER DECIMALS  UPPER DECIMALS SAMPLE VIOLATES MCL

      XXXXXX           888889              9           88889     9     88889    9              9

      SEASONAL          SPECIAL            MAXIMUM TIME TO INITIATE
      SAMPLING        COMPUTATION         SECOND SAMPLE ANALYSIS IF         PERIOD WITHIN WHICH CHECK
   (ORGANIC ONLY)                        REGULAR SAMPLE IS IN VIOLATION       SAMPLES MUST BE MADE
                                              (NITRATE ONLY)

         X                X                        88                              89


        PWS            EFFECTIVE        MONITORING REQUIREMENTS     NORMAL           IF MCL IS VIOLATED
        TYPE             DATE            SOURCE    YEARS TO        SAMPLING     MINIMUM         MINIMUM NUMBER
   _____________      _________          TYPE    FIRST SAMPLE     FREQUENCY    SAMPLING        OF SUCCESSIVE
                                                                               FREQUENCY       NEGATIVE SAMPLES

     COMMUNITY         XX/XX/XX          GROUND      9              8889        8889              89

                                         SURFACE     9              8889        8889              89


     NON-COMMUNITY     XX/XX/XX          GROUND      9              8889        8889              89

                                         SURFACE     9              8889        8889              89
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   RGF Report Module
           SouthWestern Ohio Regional Computer Center
EXHIBIT REGS.302
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3

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                                        MODEL STATE INFORMATION SYSTEM
 REGS020                                    REGULATIONS SUBSYSTEM

 DATE XX/XX/XX                  REGULATIONS REPORT - TURBIDITY CONTAMINANT                           PAGE 00009

    CONTAMINANT ID                  REGULATION/LEVEL                      CONTAMINANT NAME

       0100                               XX                                TURBIDITY

         MCL FOR                          MCL FOR                                  NUMBER OF
      MONTHLY AVERAGE               CONSECUTIVE SAMPLES                      CONSECUTIVE SAMPLES

            09                              09                                       09

        EFFECTIVE                        APPLY TO                               INCLUDE REPEAT
          DATE                          ALL SOURCES                          SAMPLES IN AVERAGE

        XX/XX/XX                             X                                       X

      _______FREQUENCY  OF  MONITORING_______                          MINIMUM RESAMPLING PERIOD
                                                                           IF MCL EXCEEDED
      COMMUNITY PWS:  009   NON-COMMUNITY PWS:  009
                                                                                 09
```

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                                   MODEL STATE INFORMATION SYSTEM
REGS020                               REGULATIONS SUBSYSTEM

DATE XX/XX/XX          REGULATIONS REPORT - POPULATION TABLE FOR BACTERIOLOGICAL SAMPLING                PAGE 88889

    CONTAMINANT ID                       REGULATION/LEVEL                          TABLE ID

       3000                                     XX                                     1

                   POPULATION LOWER LIMIT     POPULATION UPPER LIMIT      MINIMUM SAMPLES PER MONTH

                          888888889                 8888888Z9                      889
                          888888889                 888888889                      889
                          888888889                 888888889                      889
```

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9/23/76

RGF Report Module
SouthWestern Ohio Regional Computer Center
EXHIBIT REGS.304

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                                         MODEL STATE INFORMATION SYSTEM
REGS020                                       REGULATIONS SUBSYSTEM

DATE XX/XX/XX                      REGULATIONS REPORT - BACTERIOLOGICAL CONTAMINANT                    PAGE ZZZZ9

   CONTAMINANT ID            REGULATION/LEVEL             CONTAMINANT NAME              EFFECTIVE DATE

      3010                          XX                         COLIFORM                    XX/XX/XX

                                                                                   MINIMUM REQUIRED     MCL WHEN
     ANALYSIS                    SINGLE SAMPLE        MONTHLY        PERCENT OF      SAMPLES TO         PERCENT
      METHOD          UNIT            MCL               MCL           SAMPLES        USE PERCENT         IS USED
    ___________     _______      _____________       ________      __________    _______________     ________

    MEMBRANE        COLIFORM          Z9                Z9             Z9               Z9                Z9
    FILTER

    FERMENTATION    POSITIVE          Z9                Z9 (%)         Z9               Z9                Z9
    TUBE - 10ML.    PORTIONS

    FERMENTATION    POSITIVE          Z9                Z9 (%)         Z9               Z9                Z9
    TUBE - 100ML.   PORTIONS

    REQUIREMENTS FOR WAIVER OF ONE MONTH SAMPLING:    MAXIMUM REQUIRED SAMPLES      SAMPLING PERIOD

                                                                 9                        9

    CHECK SAMPLING REQUIREMENTS IF SINGLE SAMPLE MCL IS VIOLATED:

     MINIMUM NUMBER OF CONSECUTIVE       MINIMUM NUMBER OF CONSECUTIVE       MINIMUM NUMBER OF CONSECUTIVE
         DAILY CHECK SAMPLES                  NEGATIVE PORTIONS                   COLIFORM BACTERIA

                  9                                  9                                   Z9

    CHLORINE RESIDUAL METHOD:

     NUMBER OF SAMPLES IN LIEU     MAXIMUM PERCENT OF       MINIMUM CHLORINE         MAXIMUM TIME TO
      OF ONE REGULAR SAMPLE         REGULAR SAMPLES              LEVEL             RETEST CHLORINE LEVEL

              Z9                          Z9                      9.9                      Z9

    NON-COMMUNITY PWS MONITORING REQUIREMENTS:

        EFFECTIVE         SEASONAL          SAMPLING        NUMBER OF SAMPLES
          DATE            SAMPLING           PERIOD            PER PERIOD

        XX/XX/XX             X                  X                  Z9
```

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          REGS020                      1 of 1
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RGF Report Module
          SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT  REGS.305


                                          MODEL STATE INFORMATION SYSTEM
REGS020                                       REGULATIONS SUBSYSTEM

DATE XX/XX/XX                           REGULATIONS REPORT - FLUORIDE MCL TABLE                                      PAGE ZZZZ9

   CONTAMINANT ID                     REGULATION/LEVEL                                TABLE ID

      1025                                   XX                                           2

            TEMPERATURE  RANGES  AND  CORRESPONDING  MCL
          _____________________________________________________________

             FAHRENHEIT                CELSIUS                     MCL

          LOWER      UPPER         LOWER      UPPER

          Z9.9       Z9.9          Z9.9       Z9.9              ZZZZ9.9

          Z9.9       Z9.9          Z9.9       Z9.9              ZZZZ9.9

          Z9.9       Z9.9          Z9.9       Z9.9              ZZZZ9.9



                   REASONABLE BOUNDS

          Z9.9       Z9.9          Z9.9       Z9.9
```

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            REGS020                         1 of 1
                                            9/23/76
    RGF Report Module
               SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
  EXHIBIT  REGS.306


                                            MODEL STATE INFORMATION SYSTEM
    REGS020                                     REGULATIONS SUBSYSTEM
    DATE XX/XX/XX                       REGULATIONS REPORT - MAJOR BETA EMITTERS TABLE                  PAGE ZZZZ

                  REGULATION/LEVEL              TABLE ID          EFFECTIVE DATE

                        XX                          3                 XX/XX/XX

                                                                                                   NUCLEAR
                                                           ANNUAL CONCENTRATION    DETECTION     POWER PLANT
        CONTAMINANT ID        CONTAMINANT NAME            EQUIVALENT TO MCL DOSE      LIMIT        CODE(S)
             4199              XXXXXXXXXXXXXXX                   ZZZZ9.9              ZZZ9        Z Z Z Z Z
             4199              XXXXXXXXXXXXXXX                   ZZZZ9.9              ZZZ9        Z Z Z Z Z
             4199              XXXXXXXXXXXXXXX                   ZZZZ9.9              ZZZ9        Z Z Z Z Z
            REG020                           1 of 1
                                             9/23/76
RGF Report Module
            SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT  REGS.307
```

```
                                             MODEL STATE INFORMATION SYSTEM
REGS020                                          REGULATIONS SUBSYSTEM

DATE XX/XX/XX                              REGULATIONS REPORT - GROSS ALPHA CONTAMINANT                          PAGE ZZZZ9

   CONTAMINANT ID            REGULATION/LEVEL            CONTAMINANT NAME              EFFECTIVE DATE

      4000                          XX                      GROSS ALPHA                   XX/XX/XX


      MCL AND SCREENING LEVELS:
                                              MAXIMUM GROSS ALPHA                    MAXIMUM RADIUM-226
                                               SCREENING LEVEL                        SCREENING LEVEL
        GROSS        COMBINED              WITHOUT        WITH                  FOR           FOR ANNUAL
        ALPHA         RADIUM              RADIUM-228    RADIUM-228           RADIUM-228       MONITORING
         MCL           MCL

        Z9.9          Z9.9                  Z9.9          Z9.9                 Z9.9             Z9.9


      SAMPLING AND ANALYSIS REQUIREMENTS;
                                                                   INITIAL
        NUMBER OF SAMPLES          MINIMUM NORMAL            MONITORING PERIOD               FRACTION OF MCL
            PER YEAR            MONITORING FREQUENCY       FOR NEW WATER SOURCE         AT WHICH TO SUBSTITUTE
                                                                                         SINGLE ANNUAL SAMPLE
               9                         9                          Z9
                                                                                                 .99
        MINIMUM MONITORING         ANNUAL COMPOSITE OR        THESE REGULATIONS APPLY TO
         FREQUENCY IF PWS          FOUR SAMPLE AVERAGE          COMMUNITY, NON-COMMUNITY
         IS IN VIOLATION                REQUIRED                        OR BOTH

               Z9                          X                               X
```

REGS020 1 of 1
9/23/76

RGF Report Module
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER

EXHIBIT REGS.308

```
                                              MODEL STATE INFORMATION SYSTEM
                                                REGULATIONS SUBSYSTEM
REGS020
                                         REGULATIONS REPORT - GROSS BETA CONTAMINANT                          PAGE ZZZZ9
DATE XX/XX/XX

   CONTAMINANT ID          REGULATION/LEVEL           CONTAMINANT NAME              EFFECTIVE DATE

      4100                       XX                      GROSS BETA                    XX/XX/XX

     MCL AND SCREENING LEVELS:
                                                    ______MAXIMUM  GROSS  BETA  SCREENING  LEVELS______________
       MAN-MADE                                   FOR MAJOR BETA       FOR MAJOR BETA        FOR STRONTIUM-89 AND
     RADIONUCLIDE       TRITIUM     STRONTIUM-90  EMITTERS - NO      EMITTERS - WATERS       CESIUM-134 - WATERS
      ANNUAL MCL       SCREENING     SCREENING    NUCLEAR FACILITY   CONTAMINATED BY A        CONTAMINATED BY A
        DOSAGE           LEVEL         LEVEL      CONTAMINATION       NUCLEAR FACILITY         NUCLEAR FACILITY

         9.9             ZZZZ9         Z9.9           Z9.9                Z9.9                     Z9.9

     SAMPLING AND ANALYSIS REQUIREMENTS:

       THESE REGULATIONS APPLY TO        REQUIRED MONITORING           COMPOSITE OR          MINIMUM POPULATION
       COMMUNITY, NON-COMMUNITY        OF GROUND WATER SOURCES      SAMPLE AVERAGE            FOR REQUIRED
               OR BOTH                                                  REQUIRED             ANNUAL MONITORING

                  X                            X                           X                     ZZZZZ9

        NO NUCLEAR FACILITY CONTAMINATION:                          MINIMUM MONITORING
                                                                    FREQUENCY IF PWS
          NUMBER OF SAMPLES          MINIMUM NORMAL                 IS IN VIOLATION
              PER YEAR            MONITORING FREQUENCY
                                                                          Z9
                 9                       9

        WATERS CONTAMINATED BY A NUCLEAR FACILITY:
                                                                    MINIMUM MONITORING        IODINE-131 CONSECUTIVE
          NUMBER OF SAMPLES          MINIMUM NORMAL                 FREQUENCY IF PWS         DAILY SAMPLES REQUIRED
        ______PER YEAR_______     MONITORING FREQUENCY              IS IN VIOLATION               PER QUARTER
                   STRONTIUM-90                STRONTIUM-90
        IODINE-131  AND TRITIUM    IODINE-131   AND TRITIUM                                          Z9

           Z9           Z9            Z9           Z9                     Z9
```

```
            PWSI030                   1 of 1
                                      11/16/76
  PRODUCE CONDENSED REPORT
          SouthWestern Ohio Regional Computer Center
EXHIBIT  PWSI.300


                                              MODEL STATE INFORMATION SYSTEM
  PWSI030                                   PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

  DATE XX/XX/XX                                     CONDENSED REPORT                                        PAGE ZZZZ9

  PWS-ID  REGION DISTRICT TYPE      MAILING NAME/ADDRESS          PLANT/OWNER ADDRESS          PLANT LOCATION      OWNER POPULATION
                                                                                                                    TYPE   SERVED

  XXXXXXX   XX     XX      X   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX CITY: XXXXXXXXXXXXXXX   X   XXXXXXXXX
                               XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX COUNTY: XX
                               XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                               XX XXXXX                       XX XXXXX
```

```
                  PWS1050                           1 OF 1
                                                    11/18/76
  STATE DISCRETIONARY DATA REPORT MODULE
              SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT PWS1.301


                                                      MODEL STATE INFORMATION SYSTEM
 PWS1050                                          PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

 DATE XX/XX/XX                               PUBLIC WATER SYSTEMS - STATE DISCRETIONARY DATA                               PAGE ZZZZ9

  REGN DIST    ID              NAME     -------------------------B A C T E R I O L O G I C A L--------------------   ---TURBIDITY---
                                                                                     MIN NO  NCOM  MCL HALT   %
   XX   XX  XXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX   BACTI MONTHLY  NO OF   SEASON   DAILY  SAMPLE  CHECK  CHLORINE        TURBIDITY
                                                       FLG MONITOR SAMPLES START END CHECKS  FREQ   SAMPLE  SAMPLES      FLAG    UNITS

                                                       X      X      XXX   XX/XX XX/XX X      XXX     X       XX           X      X.X

  -----------------CHEMICALS----------------         ----------------------------------RADIOACTIVE---------------------------------------
       FOLLOW
    UP MONITOR                    INORGANIC
  CONTAMIN SAMPLE    ORGANIC      AIR NITRATE       RADIOACTIVE  BETA FREQ  NUCLEAR    MONITOR      MONITOR    NUM SAMPLES  GROUND WATER
     ID      FREQ   BEGIN END    TEMP   FREQ        FLG MONITOR    MONTHS      FAC   GROSS ALPHA  RADIUM MTHS    PER YR        MONITOR

    XXXX     XXX   XX/XX XX/XX XX.X    XXXX          X     X         XX       X X         XX           XX           X            X
    XXXX     XXX
    XXXX     XXX
    XXXX     XXX

  LAB DATA:         ID       CAPTIVE       TYPE
                                                                                     FACILITY          CONTAMINANT
                  XXXXX          X           X                                     CONTAMIN ID          FREQUENCY
                  XXXXX          X           X
                  XXXXX          X           X
                  XXXXX          X           X                                         XXXX                XX
                  XXXXX          X           X                                         XXXX                XX
                                                                                       XXXX                XX
 VARIANCE OR   CONTAMINANT  MODIFIED   ALT MONITOR                                     XXXX                XX
  EXEMPTION:        ID         MCL         FREQ                                        XXXX                XX
                                                                                       XXXX                XX
                  XXXXX       XXXXXX       XXX                                         XXXX                XX
                  XXXXX       XXXXXX       XXX                                         XXXX                XX
                  XXXXX       XXXXXX       XXX                                         XXXX                XX
                  XXXXX       XXXXXX       XXX                                         XXXX                XX
```

PWS1040 1 of 1
11/18/76

Production Data Report Module
SouthWestern Ohio Regional Computer Center

EXHIBIT PWS1.302

```
                                                MODEL STATE INFORMATION SYSTEM
PWS1040                                      PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

DATE XX/XX/XX                                     PRODUCTION AND CAPACITY DATA                                  PAGE ZZZZ9

PWS-ID REG/                                         POPULATION SERVICES METERS  AVERAGE  DESIGN    EMERGENCY   STORAGE    MAXIMUM
       DIST TYPE UNITS          PWS NAME              SERVED    NUMBER  NUMBER PRODUCT CAPACITY     POWER    CAPACITY  PRODUCTION

XXXXXXX XX/XX  X    X XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXX XXXXXXX XXXXXXX XXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX
XXXXXXX XX/XX  X    X XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXX XXXXXXX XXXXXXX XXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX
XXXXXXX XX/XX  X    X XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXX XXXXXXX XXXXXXX XXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX
```

```
          PWS1060                     1 OF 1

     PRODUCE COMPREHENSIVE REPORT
          SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
     EXHIBIT PWS1.303


                                                  MODEL STATE INFORMATION SYSTEM
PWS1060                                       PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

DATE XX/XX/XX                                          COMPREHENSIVE REPORT                                        PAGE ZZZZ9

PWS-ID: XXXXXXX  NAME: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX           PHONE: (XXX) XXX-XXXX        INDIAN RESERVATION CODE: XXX
       PLANT ADDRESS: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX           PLANT AREA LOCATION:         COMPLIANCE CYCLE: XX
                      XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XX XXXXX         CITY: XXXXXXXXXXXXXXX  POSTAL CODE: XX
        MAILING NAME: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX                  COUNTY: XXX            PLANT TYPE: X    OWNER TYPE: X
     MAILING ADDRESS: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                      XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XX XXXXX         REGION: XX          DISTRICT: XX    PLANT BEGIN DATE: XX/XX
PLANT   RESIDENTIAL: X  COMPANY TOWN: X  RECREATION  : X  MOBILE HOMES  : X  INSTITUTION  : X  SCHOOL   X  OTHER AREA: X
 SERVICE  MOTEL    : X  RESTAURANT  : X  SERV STATION: X  CAMPGROUND    : X  PICNIC AREA  : X  LODGE    X
  AREA:   MARINA   : X  SKI RESORT  : X  BATHING     : X  VISITOR CENTER: X  HWY REST AREA: X  AIRPORT: X
                                                                                    CONSECUTIVE INDICATOR: X
  POPULATION SERVED: XXXXXXXXX   NUMBER OF SERVICES: XXXXXXX   NUMBER OF METERS: XXXXXXX   NUMBER OF CONSECUTIVE PWS: XXXXXXX
  DESIGN CAPACITY:  XXXXXXXXXX   EMERGENCY POWER: XXXXXXXXXX   STORAGE CAPACITY:XXXXXXXXXX MAXIMUM PRODUCTION: XXXXXXXXXX
  INTERSTATE CARRIER:    X       AVERAGE PRODUCTION:XXXXXXXXXX LAST SURVEY DATE: XX/XX/XX  LAST UPDATE DATE:   XX/XX/XX
  DEACTIVATION REASON:   X       DEACTIVATION DATE: XX/XX/XX   MANUAL FILE: XXXXXXXXXXXX   REGULATE BY: X     ACTIVITY CODE: X

STATE DISCRETIONARY DATA:
  BACTERIOLOGICAL FLG: X     MINIMUM NUMBER DAILY CHECKS: X    NON-COMMUNITY SAMPLING FREQ: XXX             SEASON
  MONTHLY MONITORING:  X     SAMPLES PER QUARTER: XXX          MCL HALT CHECK SAMPLE: X           START: XX/XX    END: XX/XX
  CHLORINE : XX              TURBIDITY FLAG: X                 TURBIDITY UNITS: X.X

FOLLOW UP:            CONTAMINANT ID:     XXXX      XXXX      XXXX      XXXX
                      SAMPLING FREQ :     XXX       XXX       XXX       XXX
  ORGANIC CHEMICALS:                   ORGANIC               INORGANIC CHEMICALS:
                      BEGIN PERIOD: XX/XX END PERIOD: XX/XX                  AIR TEMPERATURE: XX.X     NITRATE FREQUENCY: XXXX
RADIOACTIVE: FLAG: X  MONITORING: X  BETA FREQUENCY MONTHS: XX  MONITOR GROSS ALPHA: XX  MONITOR RADIUM MONTHS: XX
          GROUND WATER MONITOR: X  NO SAMPLES PER YEAR: X     NUCLEAR FACILITY: X      NUCLEAR FACILITY TYPES:  X  X
       FACILITY CONTAMINANT ID: XXXX    XXXX    XXXX    XXXX    XXXX    XXXX    XXXX    XXXX    XXXX    XXXX
       SAMPLING FREQUENCY:        XX      XX      XX      XX      XX      XX      XX      XX      XX      XX
OPERATING REPORT:   REPORT REQUIRED: X  LAST REPORT DATE: XX/XX  GENERIC METRIC SYSTEM: X
  STATE RESERVED:

LAB DATA:                                                     VARIANCE OR EXEMPTION:
          LAB ID:       XXXXX XXXXX XXXXX XXXXX XXXXX                 CONTAMINANT ID  :    XXXX       XXXX       XXXX       XXXX
          CAPTIVE FLG:    X     X     X     X     X                   MODIFIED MCL    : XXXXXXXXXX XXXXXXXXX  XXXXXXXXXX XXXXXXXXXX
PLANT SOURCES NUMBER: XX                                              ALT MONITOR FREQ:    XXX        XXX        XXX        XXX
SOURCE INFORMATION:                                                                                          TREATMENTS
                                                                                                   A P C S F C S T I A F D O P
                                                                                                   E R O E I O O A R M L I T E
                                                                                                   R E A D L P F S O M U S H S
                   SOURCE    NUMBER                       BASIN                            SELLER  A C G I T R T T N O O I E E
   SOURCE NAME      CODE    OF WELLS    AVAILABILITY      NUMBER   LATITUDE    LONGITUDE     ID    T H L M R O E E R N R N R R

 XXXXXXXXXXXXXXX     X         XX            X            XXXX    XXX.XX.XX    XXX.XX.XX   XXXXXXX X X X X X X X X X X X X X X
 XXXXXXXXXXXXXXX     X         XX            X            XXXX    XXX.XX.XX    XXX.XX.XX   XXXXXXX X X X X X X X X X X X X X X
 XXXXXXXXXXXXXXX     X         XX            X            XXXX    XXX.XX.XX    XXX.XX.XX   XXXXXXX X X X X X X X X X X X X X X
```

```
                PWSI120                          1 OF 1
                                                 11/16/76
CONVERT NATIONAL INVENTORY MODULE
              SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT PWSI.305


                                                MODEL STATE INFORMATION SYSTEM
PWSI120                                       PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

DATE XX/XX/XX                                 NATIONAL PUBLIC WATER SUBSYSTEM                                   PAGE ZZZZ9
                                                   CONVERTED DATA REPORT

PWS PLANT-----
         NAME: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX  PHONE: XXX XXXXXXX  ------PLANT------             -----PLANT------
     LOCATION: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX                      COUNTY CODE       : XXX        DESIGN CAPACITY : XXXXXXXXXX
               XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX                      POPULATION SERVED: XXXXXXXXX  EMERGENCY POWER : XXXXXXXXXX
               XX  XXXXX                                           NUMBER SERVICES  : XXXXXXX    STORAGE CAPACITY: XXXXXXXXXX
                                                                   NUMBER METERS    : XXXXXXX    AVERAGE CAPACITY: XXXXXXXXXX
                                                                   BEGIN DATE       : XX/XX      MAX. PRODUCTION : XXXXXXXXXX

SERVICE AREA CHARACTERISTICS:   COMMUNITY: X   COMPANY TOWN: X   RECREATION     : X   MOBILE HOME PARK: X   INSTITUTION      : X
                    SCHOOL : X  MOTEL     : X   RESTAURANT   : X   SERVICE STATION: X   CAMPGROUND      : X   PICNIC AREA      : X
                    LODGE  : X  MARINA    : X   SKI RESORT   : X   BATHING        : X   VISITOR CENTER  : X   HIGHWAY REST AREA: X
                    OTHER  : X

PWS PLANT:                                 SOURCE                                                LAST UPDATE DATE: Z9/Z9/Z9
     SOURCE NAME     LATITUDE LONGITUDE    CODE        TREATMENTS              SOURCES
                                                                     1 2 3 4 5 6 7 8 9 10 11 12
1  XXXXXXXXXXXXXXX  XXXXXXX   XXXXXXX       X      AERATION        : X X X X X X X X X  X  X  X
2  XXXXXXXXXXXXXXX  XXXXXXX   XXXXXXX       X      PRECHLORINATION: X X X X X X X X X  X  X  X
3  XXXXXXXXXXXXXXX  XXXXXXX   XXXXXXX       X      COAGULATION     : X X X X X X X X X  X  X  X
4  XXXXXXXXXXXXXXX  XXXXXXX   XXXXXXX       X      SEDIMENTATION   : X X X X X X X X X  X  X  X
5  XXXXXXXXXXXXXXX  XXXXXXX   XXXXXXX       X      FILTRATION      : X X X X X X X X X  X  X  X
6  XXXXXXXXXXXXXXX  XXXXXXX   XXXXXXX       X      SOFTENING       : X X X X X X X X X  X  X  X
7  XXXXXXXXXXXXXXX  XXXXXXX   XXXXXXX       X      TASTE-ODOR      : X X X X X X X X X  X  X  X
8  XXXXXXXXXXXXXXX  XXXXXXX   XXXXXXX       X      IRON-REMOVAL    : X X X X X X X X X  X  X  X
9  XXXXXXXXXXXXXXX  XXXXXXX   XXXXXXX       X      AMMONIATION     : X X X X X X X X X  X  X  X
10 XXXXXXXXXXXXXXX  XXXXXXX   XXXXXXX       X      FLOURIDE-ADJUST: X X X X X X X X X  X  X  X
11 XXXXXXXXXXXXXXX  XXXXXXX   XXXXXXX       X      DISINFECTION    : X X X X X X X X X  X  X  X
12 XXXXXXXXXXXXXXX  XXXXXXX   XXXXXXX       X
```

```
        PWS1090                          1 OF 1
                                         11/18/77
__ __PHF PURGE MODULE
        SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
  EXHIBIT PWSI.306


                                           MODEL STATE INFORMATION SYSTEM
PWS1090                                 PUBLIC WATER SYS[illegible] INVENTORY SUBSYSTEM

DATE XX/XX/XX                              PUBLIC HISTORY FILE PURGE REPORT                                   PAGE ZZZZ9
                                                PURGE DATE: XX/XX/XX
                                                        DATA
                               CURRENT REGION    LAST  ELEMENT
PWS-ID         PWS NAME         UPDATE    DIST  UPDATE  CTLG.NO          NEW VALUE                      OLD VALUE

XXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XX/XX/XX XX  XX XX/XX/XX   XXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

```
                PWSI070                          1 of 1
                                                 1/12/77
PHF Maintenance Module
            SouthWestern Ohio Regional Computer Center
EXHIBIT PWSI.307


                                                   MODEL STATE INFORMATION SYSTEM
PWSI070                                       PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

DATE XX/XX/XX                                PUBLIC WATER SYSTEM INVENTORY UPDATE REPORT                           PAGE ZZZZ9
                                                       OPTION: XXXXXXXXXXXXXXX ①

                                                                 DATA
                                       CURRENT REGION     LAST  ELEMENT
PWS-ID             PWS NAME             UPDATE     DIST   DATE  CTLG.NO          NEW VALUE                       OLD VALUE

XXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XX/XX/XX XX  XX XX/XX/XX   XXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

① X's will be replaced by one of the following:

a. CURRENT UPDATES
b. ALL UPDATES

```
          PWS1010                        1 OF 1
                                         3/2/77
     PWF DATA ENTRY AND UPDATE MODULE
          SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
     EXHIBIT PWS1.309
```

```
PWS1010                                      MODEL STATE INFORMATION SYSTEM
                                         PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM
DATE XX/XX/XX                                  PWF UPDATE STATISTICS REPORT                                      PAGE ZZZZ9

                                                                                % RELATIVE TO THE
                                                                  -- TOTAL --     ORIGINAL FILE
            1. NUMBER OF RECORDS ORIGINALLY ON THE FILE           ZZZ,ZZZ,ZZ9
            2. NUMBER OF ACCEPTABLE DATA ENTRY TRANSACTIONS       ZZZ,ZZZ,ZZ9
            3. NUMBER OF STANDARD ERROR RECORDS CREATED           ZZZ,ZZZ,ZZ9
            4. NUMBER OF RECORDS MODIFIED ON THE FILE             ZZZ,ZZZ,ZZ9        ZZ9 %
            5. NUMBER OF NEW RECORDS ADDED TO THE FILE            ZZZ,ZZZ,ZZ9        ZZ9 %
            6. NUMBER OF DEACTIVATED RECORDS ON THE FILE          ZZZ,ZZZ,ZZ9        ZZ9 %
            7. NUMBER OF RECORDS DEACTIVATED THIS RUN             ZZZ,ZZZ,ZZ9
            8. NUMBER OF RECORDS DELETED THIS RUN                 ZZZ,ZZZ,ZZ9        ZZ9 %
            9. NUMBER OF RECORDS NOW ON THE FILE                  ZZZ,ZZZ,ZZ9        ZZ9 %
           10. NUMBER OF NEW PWS RECORDS                          ZZZ,ZZZ,ZZ9
           11. NUMBER OF INCOMPLETE PWS RECORDS                   ZZZ,ZZZ,ZZ9
           12. NUMBER OF PWS STATUS RECORDS                       ZZZ,ZZZ,ZZ9
           13. NUMBER OF UNSUCCESSFUL UPDATE RECORDS              ZZZ,ZZZ,ZZ9
           PWS1080                         1 OF 1
                                           12/14/76
PHF SELECTION MODULE
         SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT PWSI.311


                                                   MODEL STATE INFORMATION SYSTEM
PWS1080                                         PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

DATE XX/XX/XX                                     PUBLIC HISTORY FILE SELECTION REPORT                               PAGE ZZZZ9

                                                                DATA
                                               CURRENT REGION  LAST  ELEMENT
PWS-ID             PWS NAME                     UPDATE    DIST UPDATE CTLG.NO            NEW VALUE                    OLD VALUE

XXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XX/XX/XX XX  XX XX/XX/XX   XXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

XXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XX/XX/XX XX  XX XX/XX/XX   XXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

PWSI090 1 of 1
11/18/76

PHF Purge Module
SouthWestern Ohio Regional Computer Center
EXHIBIT PWSI.312

```
                                              MODEL STATE INFORMATION SYSTEM
   PWSI090                                  PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM
                                                                                                             PAGE ZZZZ9
   DATE XX/XX/XX                            PUBLIC HISTORY FILE PURGE STATISTICS REPORT

                                                                                % RELATIVE TO THE
                                                                 -- TOTAL --      ORIGINAL FILE

                 1. NUMBER OF RECORDS ORIGINALLY ON THE FILE      ZZZ,ZZZ,ZZ9

                 2. NUMBER OF RECORDS PURGED THIS RUN             ZZZ,ZZZ,ZZ9          ZZ9%

                 3. NUMBER OF RECORDS NOW ON THE FILE             ZZZ,ZZZ,ZZ9          ZZ9%
```

```
          WAQC210                            1 OF 1
                                             10/28/76
LBT CREATION MODULE
          SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
                  EXHIBIT WAQC.300

                                              MODEL STATE INFORMATION SYSTEM
WAQC210                                      WATER QUALITY COMPLIANCE SUBSYSTEM

                                                LABORATORY TABLE REPORT                                              PAGE ZZZZ9
DATE XX/XX/XX

     LAB ID          LABORATORY NAME             CONTAMINANT      ______AUTHORIZED ANALYSIS METHOD CODES______
                                                   GROUP
     XXXXX    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX                      XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX
                                                     0
          OWNER TYPE      EXPIRATION DATE                         XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX

              X               XX/XX/XX                            XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX
                                                     1
                                                                  XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX

                                                                  XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX
                                                     2
                                                                  XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX

                                                                  XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX
                                                     3
                                                                  XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX

                                                                  XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX
                                                     4
                                                                  XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX
```

WAQC010 1 OF 1
12/17/76

PSF DATA ENTRY AND UPDATE MODULE
SouthWestern Ohio Regional Computer Center
EXHIBIT WAQC.301

```
                                          MODEL STATE INFORMATION SYSTEM
WAQC010                                  WATER QUALITY COMPLIANCE SUBSYSTEM
DATE XX/XX/XX                             UPDATE REPORT - PERIODIC SAMPLE FILE                          PAGE ZZZZ9

 ACTION
  TAKEN     --------RECORD KEY-----------------     -----------------------REMAINDER OF THE RECORD------------------------

  ADDED     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

 DELETED    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

 XXXXXXX    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

 XXXXXXX    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

 XXXXXXX    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

WAQC011 1 of 1
12/17/76

PSF Transaction Report
SouthWestern Ohio Regional Computer Center
EXHIBIT WAQC.302

```
                                   MODEL STATE INFORMATION SYSTEM
WAQC011                            WATER QUALITY COMPLIANCE SUBSYSTEM

DATE XX/XX/XX                 TRANSACTION SORT SEQUENCE REPORT - PERIODIC SAMPLE FILE          PAGE 88889

                                      MNEMONIC NAME    SORT MODE

                                   1.  XXXXXXXXXX          X

                                   2.  XXXXXXXXXX          X

                                   3.  XXXXXXXXXX          X

                                   4.  XXXXXXXXXX          X

                                   5.  XXXXXXXXXX          X

                                   6.  XXXXXXXXXX          X

                                   7.  XXXXXXXXXX          X

                                   8.  XXXXXXXXXX          X

                                   9.  XXXXXXXXXX          X

                                  10.  XXXXXXXXXX          X
```

```
        WAQC011                        1 of 1
                                       12/17/76
PSF Transaction Report
           SouthWestern Ohio Regional Computer Center
EXHIBIT  WAQC.303
```

```
                                                   MODEL STATE INFORMATION SYSTEM
WAQC011                                          WATER QUALITY COMPLIANCE SUBSYSTEM

DATE XX/XX/XX                              INPUT TRANSACTION REPORT - PERIODIC SAMPLE FILE                                PAGE 88889

                                                                      CARD COLUMNS
                                                 1         2         3         4         5         6         7         8
                           REJECT       12345678901234567890123456789012345678901234567890123456789012345678901234567890

                             *          xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
                             *          X------------------------------------------------------------------------------X
                             *          X------------------------------------------------------------------------------X
                                        X------------------------------------------------------------------------------X
                             *          X------------------------------------------------------------------------------X
                                        X------------------------------------------------------------------------------X
                             *          X------------------------------------------------------------------------------X
                             *          X------------------------------------------------------------------------------X
                                        X------------------------------------------------------------------------------X
                                        X------------------------------------------------------------------------------X
                             *          X------------------------------------------------------------------------------X
                                        X------------------------------------------------------------------------------X
                             *          X------------------------------------------------------------------------------X
                             *          X------------------------------------------------------------------------------X
                                        X------------------------------------------------------------------------------X
                                        X------------------------------------------------------------------------------X
                             *          X------------------------------------------------------------------------------X
                                        X------------------------------------------------------------------------------X
                             *          X------------------------------------------------------------------------------X
                                        X------------------------------------------------------------------------------X
```

WAQC020 1 of 1
12/30/76
SAF Update Module
SouthWestern Ohio Regional Computer Center
EXHIBIT WAQC.304

```
                                                     MODEL STATE INFORMATION SYSTEM
  WAQC020                                           WATER QUALITY COMPLIANCE SUBSYSTEM

  DATE XX/XX/XX                                    SAMPLE ANALYSIS FILE DELETION REPORT                                        PAGE ZZZZ9

                     RECORD KEY                                                   REMAINDER OF THE RECORD

       XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

                                               XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

       XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

                                               XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

```
          WAQC041                          1 OF 1
                                           1/13/77
RADIOLOGICAL MCL VIOLATIONS REPORT MODULE
          SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT WAQC.306


                                            MODEL STATE INFORMATION SYSTEM
WAQC041                                   WATER QUALITY COMPLIANCE SUBSYSTEM

DATE XX/XX/XX                               CHEMICAL MCL VIOLATIONS REPORT                            PAGE ZZZZ9

PERIOD XX/XX/XX TO XX/XX/XX

  PWS-ID    ---PUBLIC WATER SYSTEM NAME---            REGION                      DISTRICT            ----NOTIFY---
                                                                                                     PUBLIC  STATE
 XXXXXXX   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX              XX                           XX                   X      X

 -------------LABORATORY--------------            ------------CONTAMINANT-------------          ---------PWS------------
  ID                 NAME                          ID               NAME                        TYPE  POPULATION  SOURCE

 XXXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX             XXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX            X    XXXXXXXXX    X

---SAMPLE----          ---------ANALYSIS----------         -------VIOLATION-------         ----MCL---         REGULATION
 DATE   TYPE             DATE    METHOD   RESULTS           TYPE    DATE   DURATION          VIOLATED            LEVEL
                                                                           (MONTHS)
XX/XX/XX  XX           XX/XX/XX   XXX   XXXXXXXXXX           X    XX/XX/XX    XX            XXXXXXXXXX           XX

  PWS-ID    ---PUBLIC WATER SYSTEM NAME---            REGION                      DISTRICT            ----NOTIFY---
                                                                                                     PUBLIC  STATE
 XXXXXXX   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX              XX                           XX                   X      X

 -------------LABORATORY--------------            ------------CONTAMINANT-------------          ---------PWS------------
  ID                 NAME                          ID               NAME                        TYPE  POPULATION  SOURCE

 XXXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX             XXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX            X    XXXXXXXXX    X

---SAMPLE----          ---------ANALYSIS----------         -------VIOLATION-------         ----MCL---         REGULATION
 DATE   TYPE             DATE    METHOD   RESULTS           TYPE    DATE   DURATION          VIOLATED            LEVEL
                                                                           (MONTHS)
XX/XX/XX  XX           XX/XX/XX   XXX   XXXXXXXXXX           X    XX/XX/XX    XX            XXXXXXXXXX           XX
```

WAQC050 1 OF 1
2/11/77
BACTERIOLOGICAL SAMPLING VIOLATIONS REPORT MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT WAQC.307

```
                                           MODEL STATE INFORMATION SYSTEM
WAQC050                                   WATER QUALITY COMPLIANCE SUBSYSTEM
DATE XX/XX/XX                           BACTERIOLOGICAL MCL VIOLATIONS REPORT                                   PAGE ZZZZ9

PERIOD XX/XX/XX TO XX/XX/XX

 PWS-ID    ---PUBLIC WATER SYSTEM NAME---             REGION                           DISTRICT          ----NOTIFY---
                                                                                                         PUBLIC  STATE
XXXXXXX    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX               XX                               XX                X       X

 -------------LABORATORY--------------          ------------CONTAMINANT-------------         ----------PWS------------
  ID                  NAME                       ID               NAME                       TYPE   POPULATION   SOURCE

 XXXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX           XXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX          X     XXXXXXXXX      X

 ---SAMPLE----          ---------ANALYSIS----------               -------VIOLATION-------        ----MCL---          REGULATION
  DATE   TYPE            DATE     METHOD   RESULTS                TYPE   DATE   DURATION         VIOLATED              LEVEL
                                                                               (MONTHS)
XX/XX/XX  X             XX/XX/XX   XXX   XXXXXXXXXX                XX  XX/XX/XX   XX            XXXXXXXXXX              XX

 PWS-ID    ---PUBLIC WATER SYSTEM NAME---             REGION                           DISTRICT          ----NOTIFY---
                                                                                                         PUBLIC  STATE
XXXXXXX    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX               XX                               XX                X       X

 -------------LABORATORY--------------          ------------CONTAMINANT-------------         ----------PWS------------
  ID                  NAME                       ID               NAME                       TYPE   POPULATION   SOURCE

 XXXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX           XXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX          X     XXXXXXXXX      X

 ---SAMPLE----          ---------ANALYSIS----------               -------VIOLATION-------        ----MCL---          REGULATION
  DATE   TYPE            DATE     METHOD   RESULTS                TYPE   DATE   DURATION         VIOLATED              LEVEL
                                                                               (MONTHS)
XX/XX/XX  X             XX/XX/XX   XXX   XXXXXXXXXX                XX  XX/XX/XX   XX            XXXXXXXXXX              XX
```

```
            WAQC051                          1 OF 1
                                             2/11/77
TURBIDITY SAMPLING VIOLATIONS REPORT MODULE
        SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT WAQC.308


                                                MODEL STATE INFORMATION SYSTEM
WAQC051                                         WATER QUALITY COMPLIANCE SUBSYSTEM

DATE XX/XX/XX                                   TURBIDITY MCL VIOLATIONS REPORT                                    PAGE ZZZZ9

PERIOD XX/XX/XX TO XX/XX/XX

  PWS-ID    ---PUBLIC WATER SYSTEM NAME---                REGION                        DISTRICT              ----NOTIFY---
                                                                                                              PUBLIC  STATE
 XXXXXXX    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX                  XX                            XX                    X       X

  -------------LABORATORY--------------              ------------CONTAMINANT-------------              ----------PWS-----------
   ID                   NAME                          ID                NAME                          TYPE  POPULATION  SOURCE

 XXXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX               XXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX              X    XXXXXXXXX     X

 ---SAMPLE----              ---------ANALYSIS----------              -------VIOLATION-------       ----MCL---         REGULATION
  DATE    TYPE               DATE    METHOD   RESULTS                TYPE   DATE   DURATION         VIOLATED             LEVEL
                                                                                   (MONTHS)
 XX/XX/XX  X                XX/XX/XX   XXX   XXXXXXXXXX               XX  XX/XX/XX    XX           XXXXXXXXXX             XX

  PWS-ID    ---PUBLIC WATER SYSTEM NAME---                REGION                        DISTRICT              ----NOTIFY---
                                                                                                              PUBLIC  STATE
 XXXXXXX    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX                  XX                            XX                    X       X

  -------------LABORATORY--------------              ------------CONTAMINANT-------------              ----------PWS-----------
   ID                   NAME                          ID                NAME                          TYPE  POPULATION  SOURCE

 XXXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX               XXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX              X    XXXXXXXXX     X

 ---SAMPLE----              ---------ANALYSIS----------              -------VIOLATION-------       ----MCL---         REGULATION
  DATE    TYPE               DATE    METHOD   RESULTS                TYPE   DATE   DURATION         VIOLATED             LEVEL
                                                                                   (MONTHS)
 XX/XX/XX  X                XX/XX/XX   XXX   XXXXXXXXXX               XX  XX/XX/XX    XX           XXXXXXXXX              XX

                 ↓                                                         ↓                                        ↓
```

```
               WAQC041                      1 OF 1
                                            1/13/77
RADIOLOGICAL MCL VIOLATIONS REPORT MODULE
              SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT WAQC.309


 WAQC041                                       MODEL STATE INFORMATION SYSTEM
                                              WATER QUALITY COMPLIANCE SUBSYSTEM
 DATE XX/XX/XX                               RADIOLOGICAL MCL VIOLATIONS REPORT                             PAGE ZZZZ9

 PERIOD XX/XX/XX TO XX/XX/XX

   PWS-ID    ---PUBLIC WATER SYSTEM NAME---              REGION                              DISTRICT              ----NOTIFY---
                                                                                                                  PUBLIC  STATE
  XXXXXXX    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX                XX                                   XX                   X       X

   -------------LABORATORY--------------           ------------CONTAMINANT-------------           ---------PWS-----------
    ID                 NAME                         ID                 NAME                        TYPE  POPULATION  SOURCE

   XXXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX           XXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX               X    XXXXXXXXX     X

  ---SAMPLE----            ---------ANALYSIS----------          -------VIOLATION-------          ----MCL---          REGULATION
   DATE   TYPE                DATE    METHOD   RESULTS          TYPE     DATE    DURATION         VIOLATED             LEVEL
                                                                                 (MONTHS)
  XX/XX/XX  XX             XX/XX/XX    XXX   XXXXXXXXXX           X    XX/XX/XX     XX            XXXXXXXXXX             XX

   PWS-ID    ---PUBLIC WATER SYSTEM NAME---              REGION                              DISTRICT              ----NOTIFY---
                                                                                                                  PUBLIC  STATE
  XXXXXXX    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX                XX                                   XX                   X       X

   -------------LABORATORY--------------           ------------CONTAMINANT-------------           ---------PWS-----------
    ID                 NAME                         ID                 NAME                        TYPE  POPULATION  SOURCE

   XXXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX           XXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX               X    XXXXXXXXX     X

  ---SAMPLE----            ---------ANALYSIS----------          -------VIOLATION-------          ----MCL---          REGULATION
   DATE   TYPE                DATE    METHOD   RESULTS          TYPE     DATE    DURATION         VIOLATED             LEVEL
                                                                                 (MONTHS)
  XX/XX/XX  XX             XX/XX/XX    XXX   XXXXXXXXXX           X    XX/XX/XX     XX            XXXXXXXXXX             XX
```

WAQC060 1 OF 1
2/11/77

CHEMICAL SAMPLING VIOLATIONS REPORT MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER

EXHIBIT WAQC.310

```
                                                   MODEL STATE INFORMATION SYSTEM
WAQC060                                            WATER QUALITY COMPLIANCE SUBSYSTEM
DATE XX/XX/XX                                      CHEMICAL SAMPLING VIOLATIONS REPORT                PAGE ZZZZ9
PERIOD XX/XX/XX TO XX/XX/XX

  PWS-ID    ---PUBLIC WATER SYSTEM NAME---               REGION                        DISTRICT          ----NOTIFY---
                                                                                                         PUBLIC  STATE
 XXXXXXX    XXXXXXXXXXXXXXXXXXXXXXXXXXXXX                  XX                            XX                X       X

  -------------LABORATORY--------------          ------------CONTAMINANT-------------            ---------PWS------------
   ID                 NAME                         ID               NAME                         TYPE  POPULATION  SOURCE

  XXXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX          XXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXX              X    XXXXXXXXX    X
                                            ①
 ---SAMPLE----     SAMPLING   ------NUMBER XXXXXXX SAMPLES----      -------VIOLATION-------     SAMPLING-       REGULATION
  DATE   TYPE      CUT-OFF        REQUIRED          TAKEN           TYPE    DATE   DURATION     FREQUENCY         LEVEL
                     DATE     FEDERAL STATE     FEDERAL STATE                      (MONTHS)     VIOLATED

 XX/XX/XX  X      XX/XX/XX     XXXX   XXXX       XXXX   XXXX         XX   XX/XX/XX    XX         XXX               XX

  PWS-ID    ---PUBLIC WATER SYSTEM NAME---               REGION                        DISTRICT          ----NOTIFY---
                                                                                                         PUBLIC  STATE
 XXXXXXX    XXXXXXXXXXXXXXXXXXXXXXXXXXXXX                  XX                            XX                X       X

  -------------LABORATORY--------------          ------------CONTAMINANT-------------            ---------PWS------------
   ID                 NAME                         ID               NAME                         TYPE  POPULATION  SOURCE

  XXXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX          XXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXX              X    XXXXXXXXX    X
                                            ①
 ---SAMPLE----     SAMPLING   ----NUMBER XXXXXXX SAMPLES----        -------VIOLATION-------     SAMPLING-       REGULATION
  DATE   TYPE      CUT-OFF        REQUIRED          TAKEN           TYPE    DATE   DURATION     FREQUENCY         LEVEL
                     DATE     FEDERAL STATE     FEDERAL STATE                      (MONTHS)     VIOLATED

 XX/XX/XX  X      XX/XX/XX     XXXX   XXXX       XXXX   XXXX         XX   XX/XX/XX    XX         XXX               XX
```

① WILL CONTAIN EITHER "REGULAR" OR "CHECK"
DEPENDING ON VIOLATION TYPE.

```
              WAQC070                       1 OF 1
                                            7/11/77
BACTERIOLOGICAL MCL VIOLATIONS REPORT MODULE
          SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT WAQC.311


                                             MODEL STATE INFORMATION SYSTEM
 WAQC070                                    WATER QUALITY COMPLIANCE SUBSYSTEM

 DATE XX/XX/XX                           BACTERIOLOGICAL SAMPLING VIOLATIONS REPORT                                  PAGE ZZZZ9

 PERIOD XX/XX/XX TO XX/XX/XX                                                                                         CYCLE    29

   PWS-ID    ---PUBLIC WATER SYSTEM NAME---             REGION                      DISTRICT              ----NOTIFY---
                                                                                                          PUBLIC  STATE
  XXXXXXX    XXXXXXXXXXXXXXXXXXXXXXXXXXXXX               XX                           XX                    X       X

   -------------LABORATORY--------------         ------------CONTAMINANT-------------            ---------PWS------------
   ID                 NAME                       ID               NAME                          TYPE  POPULATION  SOURCE

   XXXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXX          XXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX             X    XXXXXXXXX     X
                                             ①
  ---SAMPLE----    SAMPLING  ------NUMBER XXXXXXX SAMPLES----        -------VIOLATION-------     SAMPLING-        REGULATION
   DATE   TYPE     CUT-OFF       REQUIRED          TAKEN             TYPE    DATE   DURATION     FREQUENCY           LEVEL
                     DATE     FEDERAL STATE    FEDERAL STATE                        (MONTHS)     VIOLATED

  XX/XX/XX  X      XX/XX/XX    XXXX   XXXX      XXXX   XXXX           XX   XX/XX/XX    XX           XXX               XX

   PWS-ID    ---PUBLIC WATER SYSTEM NAME---             REGION                      DISTRICT              ----NOTIFY---
                                                                                                          PUBLIC  STATE
  XXXXXXX    XXXXXXXXXXXXXXXXXXXXXXXXXXXXX               XX                           XX                    X       X

   -------------LABORATORY--------------         ------------CONTAMINANT-------------            ---------PWS------------
   ID                 NAME                       ID               NAME                          TYPE  POPULATION  SOURCE

   XXXXX  XXXXXXXXXXXXXXXXXXXXXYXXXXXXXX         XXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX             X    XXXXXXXXX     X
                                             ①
  ---SAMPLE----    SAMPLING  ----NUMBER XXXXXXX SAMPLES----          -------VIOLATION-------     SAMPLING-        REGULATION
   DATE   TYPE     CUT-OFF       REQUIRED          TAKEN             TYPE    DATE   DURATION     FREQUENCY           LEVEL
                     DATE     FEDERAL STATE    FEDERAL STATE                        (MONTHS)     VIOLATED

  XX/XX/XX  X      XX/XX/XX    XXXX   XXXX      XXXX   XXXX           XX   XX/XX/XX    XX           XXX               XX

 ① WILL CONTAIN EITHER "REGULAR" OR "CHECK"
   DEPENDING ON VIOLATION TYPE.
```

WAQC080 1 OF 1
2/11/77

TURBIDITY MCL VIOLATIONS REPORT MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER

EXHIBIT WAQC 312

```
WAQC080                                  MODEL STATE INFORMATION SYSTEM
                                       WATER QUALITY COMPLIANCE SUBSYSTEM
DATE XX/XX/XX                          TURBIDITY SAMPLING VIOLATIONS REPORT                               PAGE ZZZZ9

PERIOD XX/XX/XX TO XX/XX/XX                                                                               CYCLE   Z9

 PWS-ID   ---PUBLIC WATER SYSTEM NAME---          REGION                     DISTRICT                ----NOTIFY---
                                                                                                     PUBLIC  STATE
XXXXXXX   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX           XX                          XX                      X      X
------------LABORATORY--------------      ------------CONTAMINANT---  ---------          ---------PWS------------
 ID                NAME                    ID              NAME                          TYPE  POPULATION  SOURCE

XXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX       XXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXX             X    XXXXXXXXX     X
                                       ①
--SAMPLE----    SAMPLING  ------NUMBER XXXXXXX SAMPLES----     -------VIOLATION-------   SAMPLING-     REGULATION
 DATE  TYPE     CUT-OFF        REQUIRED          TAKEN         TYPE   DATE   DURATION    FREQUENCY       LEVEL
                  DATE     FEDERAL STATE     FEDERAL STATE                   (MONTHS)    VIOLATED

XX/XX/XX  X    XX/XX/XX     XXXX   XXXX       XXXX   XXXX       XX  XX/XX/XX    XX          XXX            XX

 PWS-ID   ---PUBLIC WATER SYSTEM NAME---          REGION                     DISTRICT                ----NOTIFY---
                                                                                                     PUBLIC  STATE
XXXXXXX   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX           XX                          XX                      X      X
------------LABORATORY--------------      ------------CONTAMINANT------------            ---------PWS------------
 ID                NAME                    ID              NAME                          TYPE  POPULATION  SOURCE

XXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX       XXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXX             X    XXXXXXXXX     X
                                       ①
---SAMPLE----   SAMPLING   ----NUMBER XXXXXXX SAMPLES----      -------VIOLATION-------   SAMPLING-     REGULATION
 DATE  TYPE     CUT-OFF        REQUIRED          TAKEN         TYPE   DATE   DURATION    FREQUENCY       LEVEL
                  DATE     FEDERAL STATE     FEDERAL STATE                   (MONTHS)    VIOLATED

XX/XX/XX  X    XX/XX/XX     XXXX   XXXX       XXXX   XXXX       XX  XX/XX/XX    XX          XXX            XX
```

① WILL CONTAIN EITHER "REGULAR" OR "REPEAT"
DEPENDING ON VIOLATION TYPE

```
            WAQC061                        1 OF 1
                                           2/11/77
 RADIOLOGICAL SAMPLING VIOLATIONS REPORT MODULE
            SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT WAQC.313


                                              MODEL STATE INFORMATION SYSTEM
  WAQC061                                    WATER QUALITY COMPLIANCE SUBSYSTEM

  DATE XX/XX/XX                              RADIOLOGICAL SAMPLING VIOLATIONS REPORT                          PAGE ZZZZ9

  PERIOD XX/XX/XX TO XX/XX/XX

    PWS-ID    ---PUBLIC WATER SYSTEM NAME---             REGION                       DISTRICT              ----NOTIFY---
                                                                                                            PUBLIC  STATE
   XXXXXXX    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX               XX                           XX                    X      X

   -------------LABORATORY--------------           ------------CONTAMINANT-------------            ---------PWS-----------
    ID                  NAME                       ID                 NAME                         TYPE  POPULATION  SOURCE

   XXXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX           XXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX            X     XXXXXXXXX    X
                                         ①
  ---SAMPLE----     SAMPLING   ------NUMBER XXXXXXX SAMPLES----        -------VIOLATION-------     SAMPLING-  :   REGULATION
   DATE   TYPE      CUT-OFF        REQUIRED           TAKEN            TYPE    DATE   DURATION     FREQUENCY          LEVEL
                      DATE     FEDERAL STATE      FEDERAL STATE                       (MONTHS)     VIOLATED

  XX/XX/XX  X       XX/XX/XX    XXXX   XXXX        XXXX   XXXX          XX   XX/XX/XX    XX          XXX              XX

    PWS-ID    ---PUBLIC WATER SYSTEM NAME---             REGION                       DISTRICT              ----NOTIFY---
                                                                                                            PUBLIC  STATE
   XXXXXXX    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX               XX                           XX                    X      X

   -------------LABORATORY--------------           ------------CONTAMINANT-------------            ---------PWS-----------
    ID                  NAME                       ID                 NAME                         TYPE  POPULATION  SOURCE

   XXXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX           XXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX            X     XXXXXXXXX    X
                                         ①
  ---SAMPLE----     SAMPLING   ----NUMBER XXXXXXX SAMPLES----          -------VIOLATION-------     SAMPLING-      REGULATION
   DATE   TYPE      CUT-OFF        REQUIRED           TAKEN            TYPE    DATE   DURATION     FREQUENCY          LEVEL
                      DATE     FEDERAL STATE      FEDERAL STATE                       (MONTHS)     VIOLATED

  XX/XX/XX  X       XX/XX/XX    XXXX   XXXX        XXXX   XXXX          XX   XX/XX/XX    XX          XXX              XX


  ① WILL CONTAIN EITHER "REGULAR" OR "CHECK"
    DEPENDING ON VIOLATION TYPE
```

```
                WAQC 220                   1 OF 1
SAF PURGE MODULE                           1/4/77
           SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT WAQC.315


                                            MODEL STATE INFORMATION SYSTEM
WAQC220                                    WATER QUALITY COMPLIANCE SUBSYSTEM
DATE XX/XX/XX                              SAMPLE ANALYSIS FILE - PURGE REPORT                              PAGE ZZZZ9
                   RECORD KEY                                         REMAINDER OF RECORD
          XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXX      XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
          XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXX      XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

WAQC220 1 of 1
1/4/77

SAF Purge Module
SouthWestern Ohio Regional Computer Center
EXHIBIT WAQC.316

```
                                                MODEL STATE INFORMATION SYSTEM
 WAQC220                                       WATER QUALITY COMPLIANCE SUBSYSTEM

                                          SAMPLE ANALYSIS FILE PURGE STATISTICS REPORT                        PAGE ZZZZ9

                                                                                         % RELATIVE TO THE
                                                                              TOTAL        ORIGINAL FILE

                   1. NUMBER OF RECORDS ORIGINALLY ON THE FILE             ZZZ,ZZZ,ZZ9

                   2. NUMBER OF RECORDS PURGED FROM FILE                   ZZZ,ZZZ,ZZ9       ZZZ9 %

                   3. NUMBER OF RECORDS NOW ON FILE                        ZZZ,ZZZ,ZZ9       ZZZ9 %
```

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          WAQC180                       1 OF 1
                                        3/24/77
CHEMICAL AND RADIOLOGICAL SCHEDULE REPORT MODULE
        SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT WAQC.319


                                         MODEL STATE INFORMATION SYSTEM
 WAQC140                                WATER QUALITY COMPLIANCE SUBSYSTEM

 DATE XX/XX/XX                     PWS SCHEDULED FOR CHEMICAL/RADIOLOGICAL SAMPLING                       PAGE 2229


 REGION                                                 PWS                 CONTAMINANT                 SAMPLING PERIOD
    DISTRICT PWS-ID        PUBLIC WATER SYSTEM NAME     TYPE   POPULATION   ID    NAME                   START      END

  XX   XX     XXXXXXX    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX   X    XXXXXXXXX    XXXX  XXXXXXXXXXXXXXX  XX/XX/XX  XX/XX/XX
                                                                            XXXX  XXXXXXXXXXXXXXX  XX/XX/XX  XX/XX/XX
                                                                            XXXX  XXXXXXXXXXXXXXX  XX/XX/XX  XX/XX/XX


                                                                            TOTAL INORGANIC CHEMICAL SAMPLES      XXX

                                                                            TOTAL ORGANIC CHEMICAL SAMPLES        XXX

                                                                            TOTAL NATURAL RADIONUCLIDE SAMPLES    XXX

                                                                            TOTAL MAN MADE RADIONUCLIDE SAMPLES   XXX



 *                       DISTRICT  XX  TOTAL PWS SCHEDULED TO SAMPLE FOR INORGANIC CHEMICAL ANALYSIS   XXXX
                                                                    ORGANIC CHEMICAL ANALYSIS   XXXX
                                                                 NATURAL RADIONUCLIDE ANALYSIS  XXXX
                                                                MAN-MADE RADIONUCLIDE ANALYSIS  XXXX

 **                      REGION    XX  TOTAL PWS SCHEDULED TO SAMPLE FOR INORGANIC CHEMICAL ANALYSIS   XXXX
                                                                    ORGANIC CHEMICAL ANALYSIS   XXXX
                                                                 NATURAL RADIONUCLIDE ANALYSIS  XXXX
                                                                MAN-MADE RADIONUCLIDE ANALYSIS  XXXX

 ***                     STATE         TOTAL PWS SCHEDULED TO SAMPLE FOR INORGANIC CHEMICAL ANALYSIS   XXXX
                                                                    ORGANIC CHEMICAL ANALYSIS   XXXX
                                                                 NATURAL RADIONUCLIDE ANALYSIS  XXXX
                                                                MAN-MADE RADIONUCLIDE ANALYSIS  XXXX
```

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            WAQC125                          1 OF 1
                                             2/8/77
VIF SELECTION MODULE
          SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
 EXHIBIT WAQC.120


                                            MODEL STATE INFORMATION SYSTEM
WAQC125                                   WATER QUALITY COMPLIANCE SUBSYSTEM

DATE XX/XX/XX                               COMPLIANCE SUMMARY REPORT                                        PAGE ZZZZ9

STATE XX         REGION XX          DISTRICT XX                                                     COMPLIANCE CYCLE    Z9

                    PWS                 PUBLIC WATER SYSTEM                PWS         ---------PWS--------
                    ID                         NAME                       TYPE        POPULATION    SOURCE

                  XXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX          X          XXXXXXXXX      X

-------------VIOLATION------------  CONTAMINANT  LABORATORY  ---------ANALYSIS----------  ----MCL---  ----NOTIFY---  REG.
 ID        DATE      TYPE  DURATION      ID       ID  OWNER     DATE     METHOD   RESULT    VIOLATED   PUBLIC  STATE  LEVEL
                           (MONTHS)

XXXXX   XX/XX/XX      XX      XX        XXXX      XXXXX  X    XX/XX/XX    XXX   XXXXXXXXXX XXXXXXXXXX    X       X      XX

------NUMBER OF SAMPLES------  --------------SAMPLE---------------  FREQUENCY  LAST REPORT   LAST          REMARKS
REQUIRED  TAKEN  IN VIOLATION   DATE    TYPE    KEY    CUTOFF DATE   VIOLATED  DATE   TIME  UPDATE

  XXXX     XXXX      XXXX     XX/XX/XX  X   XXXXXXXXXX  XX/XX/XX       XXX     XX/XX/XX  XX XX/XX/XX XXXXXXXXXXXXXXXXXXXXXXXXX
            |                                |                         |                   |                |
            |                                |                         |                   |                |
            |                                |                         |                   |                |
            V                                V                         V                   V                V

*    TOTAL VIOLATIONS PER PWS        VIOLATIONS OF STATE REGULATIONS: Z,ZZZ,ZZ9    VIOLATIONS OF FEDERAL REGULATIONS: Z,ZZZ,ZZ9
**   TOTAL VIOLATIONS FOR DISTRICT   VIOLATIONS OF STATE REGULATIONS: Z,ZZZ,ZZ9    VIOLATIONS OF FEDERAL REGULATIONS: Z,ZZZ,ZZ9
***  TOTAL VIOLATIONS FOR REGION     VIOLATIONS OF STATE REGULATIONS: Z,ZZZ,ZZ9    VIOLATIONS OF FEDERAL REGULATIONS: Z,ZZZ,ZZ9
**** TOTAL VIOLATIONS FOR STATE      VIOLATIONS OF STATE REGULATIONS: Z,ZZZ,ZZ9    VIOLATIONS OF FEDERAL REGULATIONS: Z,ZZZ,ZZ9
```

```
            WAQC110                         1 OF 1
                                            3/4/77
CHEMICAL ANALYSES SUMMARY REPORT MODULE
            SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT WAQC.321


                                           MODEL STATE INFORMATION SYSTEM
 WAQC110                                  WATER QUALITY COMPLIANCE SUBSYSTEM

 DATE XX/XX/XX                 SUMMARY OF CHEMICAL ANALYSIS REPORT FROM XX/XX/XX TO XX/XX/XX                    PAGE ZZZZ9

  REGION   DISTRICT  PWS-ID       PUBLIC WATER SYSTEM NAME        PWS TYPE    POPULATION    SOURCE

    XX        XX     XXXXXXX   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX         X        XXXXXXXXX       X

   SAMPLE    -----CONTAMINANT----                      SAMPLE  SAMPLE     LAB    ----ANALYSIS----  NUMBER    -------VIOLATION--------
    KEY       ID        NAME                           TYPE    DATE       ID      RESULT  METHOD   SAMPLES   STATE  FEDERAL  DURATION

 XXXXXXXXXX  XXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX        X    XX/XX/XX  XXXXX  XXXXXXXXXX  XXX     XXXX      XXX    XXX      XXX

 XXXXXXXXXX  XXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX        X    XX/XX/XX  XXXXX  XXXXXXXXXX  XXX     XXXX      XXX    XXX      XXX


*    CONTAMINANT  SAMPLE  ---------ANALYSIS RESULT------------  -------MCL-------   NUMBER  -------------VIOLATION------------
       SUMMARY     TYPE      LOW        AVERAGE       HIGH       STATE    FEDERAL   SAMPLES  STATE   FEDERAL  LONGEST DURATION
                    X     XXXXXXXXXX  XXXXXXXXXX  XXXXXXXXXX  XXXXXXXX XXXXXXXX    XXXX   XXXXXXX  XXXXXXX       XXXX

                    X     XXXXXXXXXX  XXXXXXXXXX  XXXXXXXXXX  XXXXXXXX XXXXXXXX    XXXX   XXXXXXX  XXXXXXX       XXXX


* NOTE:  IF THE CONTAMINANT ID IS NOT SPECIFIED ON THE "SORT" PROCESSING OPTIONS RECORD, ONLY DETAILS ARE TO BE PRINTED; NO
         CONTAMINANT SUMMARIES WILL BE PRODUCED.  CONTAMINANT SUMMARIES ARE TO BE PRODUCED IN THE FOLLOWING ORDER: C - CHECK;
         D - REGULAR DISTRIBUTION; P - PLANT TAP; R - RAW WATER; S - SPECIAL.

**                                TOTAL  POPULATION    CHECK   REGULAR  PLANT TAP  RAW WATER  SPECIAL   ----------VIOLATION------------
                                   PWS                SAMPLES  SAMPLES   SAMPLES    SAMPLES   SAMPLES   STATE  FEDERAL  LONGEST DURATION
   *    TOTAL FOR DISTRICT        ZZZZ9  ZZZ,ZZZ,ZZ9  ZZZZZZ9  ZZZZZZ9   ZZZZZZ9    ZZZZZZ9   ZZZZZZ9   ZZZZZ9  ZZZZZ9        ZZZ9
   **   TOTAL FOR REGION          ZZZZ9  ZZZ,ZZZ,ZZ9  ZZZZZZ9  ZZZZZZ9   ZZZZZZ9    ZZZZZZ9   ZZZZZZ9   ZZZZZ9  ZZZZZ9        ZZZ9
   ***  TOTAL FOR STATE           ZZZZ9  ZZZ,ZZZ,ZZ9  ZZZZZZ9  ZZZZZZ9   ZZZZZZ9    ZZZZZZ9   ZZZZZZ9   ZZZZZ9  ZZZZZ9        ZZZ9

 NOTE:   IF THE DISTRICT AND THE REGION ARE NOT SPECIFIED ON THE "SORT" PROCESSING OPTIONS RECORD, NO TOTALS ARE TO BE PRODUCED.

 NOTE:   TO PRODUCE THE REPORT IN THE ABOVE FORMAT, THE "SORT" PROCESSING OPTIONS RECORD MUST BE:  01 - REGION; 02 - DISTRICT;
         03 - PWS-ID; AND 04 - CONTAMINANT ID.
```

```
                         WAQC111                        1 OF 1
                                                        3/4/77
         RADIOLOGICAL ANALYSES SUMMARY REPORT MODULE
                  SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
       EXHIBIT WAQC.322

                                                         MODEL STATE INFORMATION SYSTEM
WAQC111                                                WATER QUALITY COMPLIANCE SUBSYSTEM

DATE XX/XX/XX              SUMMARY OF RADIOLOGICAL ANALYSIS REPORT FROM XX/XX/XX TO XX/XX/XX                  PAGE ZZZZ9

 REGION   DISTRICT  PWS-ID      PUBLIC WATER SYSTEM NAME        PWS TYPE    POPULATION    SOURCE

   XX         XX     XXXXXXX   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX       X        XXXXXXXXX       X

  SAMPLE     -----CONTAMINANT----                   SAMPLE  SAMPLE    LAB   ----ANALYSIS----  NUMBER    -------VIOLATION--------
   KEY        ID        NAME                         TYPE    DATE      ID    RESULT  METHOD  SAMPLES   STATE  FEDERAL  DURATION

 XXXXXXXXXX  XXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX      X    XX/XX/XX  XXXXX  XXXXXXXXXX  XXX    XXXX      XXX     XXX      XXX

 XXXXXXXXXX  XXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX      X    XX/XX/XX  XXXXX  XXXXXXXXXX  XXX    XXXX      XXX     XXX      XXX
      ↓        ↓        ↓                             ↓        ↓        ↓         ↓        ↓      ↓         ↓       ↓        ↓

*  CONTAMINANT  SAMPLE  ---------ANALYSIS RESULT-----------  -------MCL-------  NUMBER  ------------VIOLATION-------------
     SUMMARY     TYPE      LOW       AVERAGE      HIGH        STATE    FEDERAL  SAMPLES  STATE    FEDERAL  LONGEST DURATION

                  X     XXXXXXXXXX  XXXXXXXXXX  XXXXXXXXXX  XXXXXXXX XXXXXXXX    XXXX  XXXXXXX  XXXXXXX        XXXX

                  X     XXXXXXXXXX  XXXXXXXXXX  XXXXXXXXXX  XXXXXXXX XXXXXXXX    XXXX  XXXXXXX  XXXXXXX        XXXX
                  ↓         ↓           ↓           ↓           ↓        ↓         ↓       ↓        ↓            ↓

* NOTE:  IF THE CONTAMINANT ID IS NOT SPECIFIED ON THE "SORT" PROCESSING OPTIONS RECORD, ONLY DETAILS ARE TO BE PRINTED; NO
         CONTAMINANT SUMMARIES WILL BE PRODUCED.  CONTAMINANT SUMMARIES ARE TO BE PRODUCED IN THE FOLLOWING ORDER: C - CHECK;
         D - REGULAR DISTRIBUTION; P - PLANT TAP; R - RAW WATER; S - SPECIAL.

**                             TOTAL  POPULATION     CHECK    REGULAR   PLANT TAP  RAW WATER  SPECIAL  -----------VIOLATION------------
                                PWS                 SAMPLES   SAMPLES    SAMPLES    SAMPLES   SAMPLES  STATE  FEDERAL  LONGEST DURATION

  *    TOTAL FOR DISTRICT      ZZZZ9  ZZZ,ZZZ,ZZ9   ZZZZZZ9   ZZZZZZ9    ZZZZZZ9    ZZZZZZ9   ZZZZZZ9  ZZZZZ9  ZZZZZ9        ZZZ9

  **   TOTAL FOR REGION        ZZZZ9  ZZZ,ZZZ,ZZ9   ZZZZZZ9   ZZZZZZ9    ZZZZZZ9    ZZZZZZ9   ZZZZZZ9  ZZZZZ9  ZZZZZ9        ZZZ9

  ***  TOTAL FOR STATE         ZZZZ9  ZZZ,ZZZ,ZZ9   ZZZZZZ9   ZZZZZZ9    ZZZZZZ9    ZZZZZZ9   ZZZZZZ9  ZZZZZ9  ZZZZZ9        ZZZ9
** NOTE:  IF THE DISTRICT AND THE REGION ARE NOT SPECIFIED ON THE "SORT" PROCESSING OPTIONS RECORD, NO TOTALS ARE TO BE PRODUCED.

   NOTE: TO PRODUCE THE REPORT IN THE ABOVE FORMAT, THE "SORT" PROCESSING OPTIONS RECORD MUST BE: 01 - REGION; 02 DISTRICT;
         03 - PWS-ID; AND 04 - CONTAMINANT ID.
```

```
        WAQC112                        1 OF 1
                                       3/4/77
BACTERIOLOGICAL SUMMARY ANALYSIS REPORT MODULE
        SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT WAQC.323


                                        MODEL STATE INFORMATION SYSTEM
 WAQC112                               WATER QUALITY COMPLIANCE SUBSYSTEM
 DATE XX/XX/XX          SUMMARY OF BACTERIOLOGICAL ANALYSIS REPORT FROM XX/XX/XX TO XX/XX/XX              PAGE ZZZZ9
  REGION   DISTRICT  PWS-ID     PUBLIC WATER SYSTEM NAME      PWS TYPE    POPULATION    SOURCE
   XX        XX     XXXXXXX   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX     X         XXXXXXXXX      X
  SAMPLE    -----CONTAMINANT----      RECORD      SAMPLE  SAMPLE    LAB   ----ANALYSIS----  NUMBER    -------VIOLATION--------
   KEY      ID       NAME              TYPE       TYPE    DATE      ID   RESULT  METHOD   SAMPLES   STATE  FEDERAL  DURATION
 XXXXXXXXXX XXXX XXXXXXXXXXXXXXX        D           X   XX/XX/XX  XXXXX  XXXXXXXXXX XXX     XXXX      XXX     XXX      XXX
 XXXXXXXXXX XXXX XXXXXXXXXXXXXXX        D           X   XX/XX/XX  XXXXX  XXXXXXXXXX XXX     XXXX      XXX     XXX      XXX
     ↓        ↓        ↓                ↓           ↓       ↓        ↓        ↓       ↓       ↓         ↓       ↓        ↓
  SAMPLE    -----CONTAMINANT----  RECORD  SAMPLE --------ANALYSIS RESULT----------METHOD ---NUM SAMPLES  --------VIOLATION-------
   KEY      ID       NAME          TYPE    TYPE    LOW      AVERAGE      HIGH           REGULAR  CHECK    STATE FEDERAL DURATION
 XXXXXXXXXX XXXX XXXXXXXXXXXXXXX    S       X   XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXX     XXXX    XXXX  XXXXXXX XXXXXXX   XXX
 XXXXXXXXXX XXXX XXXXXXXXXXXXXXX    S       X   XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXX     XXXX    XXXX  XXXXXXX XXXXXXX   XXX
     ↓        ↓        ↓            ↓       ↓       ↓          ↓          ↓        ↓       ↓       ↓       ↓       ↓       ↓
*[  CONTAMINANT  SAMPLE  --------ANALYSIS RESULT-----------  -------MCL-------   NUMBER  ------------VIOLATION------------     ]
 [    SUMMARY     TYPE       LOW        AVERAGE     HIGH      STATE    FEDERAL    SAMPLES  STATE    FEDERAL  LONGEST DURATION   ]
 [                 X     XXXXXXXXXX  XXXXXXXXXX  XXXXXXXXXX  XXXXXXXX XXXXXXXX    XXXX   XXXXXXX  XXXXXXX      XXXX            ]
 [                 X     XXXXXXXXXX  XXXXXXXXXX  XXXXXXXXXX  XXXXXXXX XXXXXXXX    XXXX   XXXXXXX  XXXXXXX      XXXX            ]
 [_                ↓         ↓           ↓           ↓          ↓        ↓          ↓       ↓        ↓           ↓            _]

*  NOTE: IF THE CONTAMINANT ID IS NOT SPECIFIED ON THE "SORT" PROCESSING OPTIONS RECORD, ONLY DETAILS ARE TO BE PRINTED; NO
         CONTAMINANT SUMMARIES WILL BE PRODUCED.  CONTAMINANT SUMMARIES ARE TO BE PRODUCED IN THE FOLLOWING ORDER: C - CHECK; D -
         REGULAR DISTRIBUTION; P - PLANT TAP; R - RAW WATER; S - SPECIAL.
**[                              TOTAL   POPULATION    CHECK   REGULAR  PLANT TAP  RAW WATER  SPECIAL  ----------VIOLATION------------  ]
  [                               PWS                 SAMPLES  SAMPLES   SAMPLES    SAMPLES   SAMPLES  STATE  FEDERAL LONGEST DURATION  ]
  [    *   TOTAL FOR DISTRICT    ZZZZ9  ZZZ,ZZZ,ZZ9  ZZZZZZ9  ZZZZZZ9   ZZZZZZ9    ZZZZZZ9   ZZZZZZ9  ZZZZZ9 ZZZZZ9       ZZZ9        ]
  [_  **   TOTAL FOR REGION      ZZZZ9  ZZZ,ZZZ,ZZ9  ZZZZZZ9  ZZZZZZ9   ZZZZZZ9    ZZZZZZ9   ZZZZZZ9  ZZZZZ9 ZZZZZ9       ZZZ9       _]
     ***   TOTAL FOR STATE       ZZZZ9  ZZZ,ZZZ,ZZ9  ZZZZZZ9  ZZZZZZ9   ZZZZZZ9    ZZZZZZ9   ZZZZZZ9  ZZZZZ9 ZZZZZ9       ZZZ9

**  NOTE: IF THE DISTRICT AND THE REGION ARE NOT SPECIFIED ON THE "SORT" PROCESSING OPTIONS RECORD, NO TOTALS ARE TO BE PRODUCED.
    NOTE:  TO PRODUCE THE REPORT IN THE ABOVE FORMAT, THE "SORT" PROCESSING OPTIONS RECORD MUST BE: 01 - REGION;  02 - DISTRICT;
           03 - PWS-ID; AND 04 - CONTAMINANT ID.
```

```
          WAQC113                              1 OF 1
                                               3/4/77
  TURBIDITY SUMMARY ANALYSIS REPORT MODULE
             SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
 EXHIBIT WAQC.324


                                                        MODEL STATE INFORMATION SYSTEM
  WAQC113                                              WATER QUALITY COMPLIANCE SUBSYSTEM

  DATE XX/XX/XX                   SUMMARY OF TURBIDITY ANALYST REPORT FROM XX/XX/XX TO XX/XX/XX                  PAGE ZZZZ9

   REGION   DISTRICT  PWS-ID       PUBLIC WATER SYSTEM NAME        PWS TYPE    POPULATION     SOURCE

    XX         XX     XXXXXXX   XXXXXXXXXXXXXXXXXXXXXXXXXXXX          X         XXXXXXXXX        X

    SAMPLE    -----CONTAMINANT----       RECORD       SAMPLE  SAMPLE    LAB   ----ANALYSIS----  NUMBER   -------VIOLATION---------
     KEY       ID       NAME              TYPE         TYPE    DATE      ID    RESULT  METHOD   SAMPLES   STATE  FEDERAL  DURATION

  XXXXXXXXXX  XXXX XXXXXXXXXXXXXXX          D            X    XX/XX/XX  XXXXX XXXXXXXXXX  XXX     XXXX      XXX    XXX       XXX

  XXXXXXXXXX  XXXX XXXXXXXXXXXXXXX          D            X    XX/XX/XX  XXXXX XXXXXXXXXX  XXX     XXXX      XXX    XXX       XXX
      ↓         ↓        ↓                  ↓            ↓        ↓        ↓       ↓        ↓       ↓         ↓      ↓         ↓

    SAMPLE    -----CONTAMINANT----  RECORD  SAMPLE  --------ANALYSIS RESULT----------METHOD ---NUM SAMPLES  --------VIOLATION-------
     KEY       ID       NAME         TYPE    TYPE      LOW      AVERAGE     HIGH              REGULAR  CHECK   STATE FEDERAL DURATION

  XXXXXXXXXX  XXXX XXXXXXXXXXXXXXX    S       X    XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX  XXX      XXXX    XXXX  XXXXXXX XXXXXXX   XXX

  XXXXXXXXXX  XXXX XXXXXXXXXXXXXXX    S       X    XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX  XXX      XXXX    XXXX  XXXXXXX XXXXXXX   XXX
      ↓         ↓        ↓            ↓       ↓        ↓          ↓          ↓        ↓        ↓       ↓       ↓       ↓       ↓

 * [  CONTAMINANT  SAMPLE  --------ANALYSIS RESULT-----------  -------MCL-------   NUMBER   ------------VIOLATION-------------     ]
        SUMMARY     TYPE       LOW       AVERAGE      HIGH      STATE   FEDERAL    SAMPLES  STATE    FEDERAL  LONGEST DURATION

                     X     XXXXXXXXXX  XXXXXXXXXX  XXXXXXXXXX  XXXXXXXX XXXXXXXX    XXXX   XXXXXXX  XXXXXXX       XXXX

                     X     XXXXXXXXXX  XXXXXXXXXX  XXXXXXXXXX  XXXXXXXX XXXXXXXX    XXXX   XXXXXXX  XXXXXXX       XXXX
    [                ↓         ↓           ↓           ↓           ↓        ↓         ↓       ↓        ↓            ↓          ]
 *  NOTE: IF THE CONTAMINANT ID IS NOT SPECIFIED ON THE "SORT" PROCESSING OPTIONS RECORD, ONLY DETAILS ARE TO BE  PRINTED; NO
          CONTAMINANT SUMMARIES WILL BE PRODUCED.  CONTAMINANT SUMMARIES ARE TO BE PRODUCED IN THE FOLLOWING ORDER:  C - CHECK;
          D - REGULAR DISTRIBUTION; P - PLANT TAP; R - RAW WATER; S - SPECIAL.

 ** [                          TOTAL  POPULATION    CHECK    REGULAR  PLANT TAP  RAW WATER  SPECIAL  ----------VIOLATION------------ ]
                                PWS                SAMPLES  SAMPLES   SAMPLES    SAMPLES   SAMPLES  STATE  FEDERAL  LONGEST DURATION

 *  [ *   TOTAL FOR DISTRICT     ZZZZ9  ZZZ,ZZZ,ZZZ  ZZZZZZ9  ZZZZZZ9   ZZZZZZ9    ZZZZZZ9   ZZZZZZ9  ZZZZZ9  ZZZZZ9       ZZZ9

      **  TOTAL FOR REGION       ZZZZ9  ZZZ,ZZZ,ZZZ  ZZZZZZ9  ZZZZZZ9   ZZZZZZ9    ZZZZZZ9   ZZZZZZ9  ZZZZZ9  ZZZZZ9       ZZZ9   ]

      *** TOTAL FOR STATE        ZZZZ9  ZZZ,ZZZ,ZZZ  ZZZZZZ9  ZZZZZZ9   ZZZZZZ9    ZZZZZZ9   ZZZZZZ9  ZZZZZ9  ZZZZZ9       ZZZ9
 ** NOTE:  IF THE DISTRICT AND THE REGION ARE NOT SPECIFIED ON THE "SORT" PROCESSING OPTIONS RECORD, NO TOTALS ARE TO BE PRODUCED.

    NOTE:  TO PRODUCE THE REPORT IN THE ABOVE FORMAT, THE "SORT" PROCESSING OPTIONS RECORD MUST BE: 01 - REGION; 02 - DISTRICT;
           03 - PWS-ID; AND 04 - CONTAMINANT ID.
```

```
                WAQC090                           1 OF 1
                                                  2/11/77
 LATE MONTHLY OPERATIONS REPORT MODULE
            SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT WAQC.325


                                                     MODEL STATE INFORMATION SYSTEM
  WAQC090                                           WATER QUALITY COMPLIANCE SUBSYSTEM

  DATE XX/XX/XX                                     OPERATION REPORT VIOLATIONS REPORT                                   PAGE ZZZZ9

  PERIOD XX/XX/XX TO XX/XX/XX

       PWS-ID   ---PUBLIC WATER SYSTEM NAME---    REGION    DISTRICT    ----------PWS------------      DATE OF       MONTHS SINCE
                                                                        TYPE  POPULATION  SOURCE     LAST REPORT     LAST REPORT

      XXXXXXX   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX      XX         XX        X    XXXXXXXXX     X        XX/XX/XX           XX
      XXXXXXX   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX      XX         XX        X    XXXXXXXXX     X        XX/XX/XX           XX
```

```
                 VARIES                         1 OF 1
                                                3/7/77
  EDIT FOR INORGANIC VIOLATION MODULE
          SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT WAQC.326
```

```
                                                 MODEL STATE INFORMATION SYSTEM
 WAQCXXX ①                                      WATER QUALITY COMPLIANCE SUBSYSTEM

 DATE XX/XX/XX                           ② XXXXXXXXXXXXXXXXXX VIOLATIONS WARNINGS REPORT                        PAGE ZZZZ9

        PWS-ID      CONTAMINANT-ID                     VIOLATION MESSAGE

        XXXXXXX         XXXX             XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

        XXXXXXX         XXXX             XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

① PROGRAM NAME

② CONTAMINANT GROUP NAME:

TURBIDITY
INORGANIC CHEMICAL
ORGANIC CHEMICAL
BACTERIOLOGICAL
GROSS ALPHA
GROSS BETA

WAQC038 1 OF 1
3/8/77

MERGE COMPLIANCE FILES MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT WAQC.327

```
                                          MODEL STATE INFORMATION SYSTEM
WAQC038                                 WATER QUALITY COMPLIANCE SUBSYSTEM
DATE XX/XX/XX                                 COMPLETION REPORT                                PAGE ZZZZ9
                                                                                  % RELATIVE TO THE
                                                                          TOTAL   SAMPLE ANALYSIS FILE

         ┌NUMBER OF RECORDS ORIGINALLY ON THE SAMPLE ANALYSIS FILE     ZZZ,ZZZ,ZZ9
         │NUMBER OF NEW RECORDS ADDED TO THE SAMPLE ANALYSIS FILE      ZZZ,ZZZ,ZZ9         ZZ9 %
         │NUMBER OF RECORDS CURRENTLY ON THE SAMPLE ANALYSIS FILE      ZZZ,ZZZ,ZZ9         ZZ9 %
         │
         │
      ①  │NUMBER OF RECORDS CURRENTLY ON THE PERIODIC SAMPLE FILE      ZZZ,ZZZ,ZZ9
         │
         │
         │NUMBER OF RECORDS CURRENTLY ON THE VIF TRANSACTION FILE      ZZZ,ZZZ,ZZ9
         │
         │
         │NUMBER OF RECORDS CURRENTLY ON THE PWF TRANSACTION FILE      ZZZ,ZZZ,ZZ9
         └

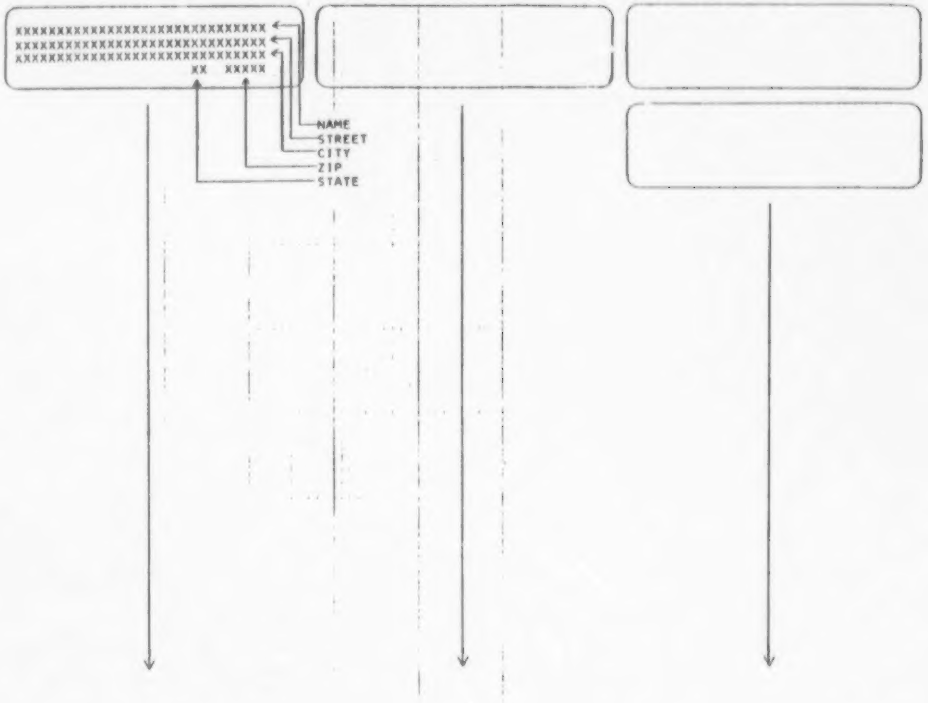
                           ②  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

① -NORMAL COMPLETION REPORT

② -ERROR MESSAGE WHEN WAQC038 IS NOT PROCESSED NORMALLY.

WAQC200 1 OF 1
3/24/77

MAILING LABELS AND REPORT CARDS MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT WAQC.329


XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XX XXXXX
NAME
STREET
CITY
ZIP
STATE

```
        FEDR010 AND 020                  1 OF 1
                                         1/4/77
BUILD MODIFIED PWF MODULE AND BUILD DVF MODULE
            SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT FEDR.300


                                         MODEL STATE INFORMATION SYSTEM
XXXXXXX   ①                                FEDERAL REPORTING SUBSYSTEM
                                                                                    PAGE ZZZZ9
DATE XX/XX/XX                                 COMPLETION REPORT
                                                                    % RELATIVE TO THE
                                                            TOTAL   XXXXXXXXXXXXXXXX  ②

              1. NUMBER OF RECORDS ON THE PUBLIC WATER FILE            ZZZ,ZZZ,ZZ9
         ③
              2. NUMBER OF RECORDS ON THE MODIFIED PUBLIC WATER FILE   ZZZ,ZZZ,ZZ9        ZZ9 %


              1. NUMBER OF RECORDS ON THE VIOLATIONS FILE              ZZZ,ZZZ,ZZ9

              2. NUMBER OF VIOLATION RECORDS ON THE DEVIATIONS FILE    ZZZ,ZZZ,ZZ9        ZZ9 %
         ④
              3. NUMBER OF VARIANCES AND EXEMPTIONS RECORDS ON THE
                                                    DEVIATIONS FILE    ZZZ,ZZZ,ZZ9

              4. NUMBER OF RECORDS ON THE DEVIATIONS FILE              ZZZ,ZZZ,ZZ9



         ① - PROGRAM NAME          FEDR010 OR FEDR020

         ② - PERCENT TITLE -  PUBLIC WATER FILE  FOR  FEDR010

                  OR       VIOLATIONS FILE   FOR  FEDR020

         ③ - DETAIL LINES TO BE USED   FOR FEDR010

         ④ - DETAIL LINES TO BE USED   FOR FEDR020
```

VARIES 1 of 1
10/28/76

This report is produced by any module that needs an Update Statistics Report.

SouthWestern Ohio Regional Computer Center

EXHIBIT MSIS.300

```
XXXXXXX ①                    MODEL STATE INFORMATION SYSTEM
                           X-------------------------------X ②
DATE XX/XX/XX                 STANDARD UPDATE STATISTICS REPORT                    PAGE ZZZZ9

                                                                     % RELATIVE TO THE
                                                              TOTAL     ORIGINAL FILE

            1. NUMBER OF RECORDS ORIGINALLY ON THE FILE      ZZZ,ZZZ,ZZ9

            2. NUMBER OF ACCEPTABLE DATA ENTRY TRANSACTIONS  ZZZ,ZZZ,ZZ9

            3. NUMBER OF STANDARD ERROR RECORDS CREATED      ZZZ,ZZZ,ZZ9

            4. NUMBER OF RECORDS MODIFIED ON THE FILE        ZZZ,ZZZ,ZZ9      ZZZ9 %

            5. NUMBER OF NEW RECORDS ADDED TO THE FILE       ZZZ,ZZZ,ZZ9      ZZZ9 %

            6. NUMBER OF RECORDS DELETED FROM THE FILE       ZZZ,ZZZ,ZZ9      ZZZ9 %

            7.  NUMBER OF RECORDS NOW ON THE FILE            ZZZ,ZZZ,ZZ9      ZZZ9 %
```

① PROGRAM NAME

② SUBSYSTEM NAME

SHF MAINTENANCE MODULE
SouthWestern Ohio Regional Computer Center

EXHIBIT MSIS.301

```
                                            MODEL STATE INFORMATION SYSTEM
MSIS020                                      STANDARD PROCESSING SUBSYSTEM
DATE XX/XX/XX                   UPDATE REPORT FOR XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX ①                PAGE ZZZZ9
                                            OPTION: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX ②

    ID                                      ------ DATA ELEMENT ------
FILE/RECORD LAST UPDATE  CURRENT UPDATE MNEMONIC  CAT NUM  HISTORY           OLD VALUE                          NEW VALUE
 XX  XXXXX   XX/XX/XX       XX/XX/XX    XXXXXXXXXX   XXX      X    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

① X's will be replaced by one of the following:

a. VIOLATIONS FILE
b. VARIANCES AND EXEMPTIONS FILE
c. ENFORCEMENT ACTIONS FILE
d. OPERATOR AND MAILING FILE

② X's will be replaced by one of the following:

a. CURRENT RECORDS UPDATE REPORT
b. CURRENT FILE RECORDS REPORT
c. ENTIRE MSIS HISTORY REPORT
d. NO DETAIL REPORT

MSIS030 1 of 1
10/15/76

Standard Tables Creation
SouthWestern Ohio Regional Computer Center

EXHIBIT MSIS.302

```
                                             MODEL STATE INFORMATION SYSTEM
MSIS030                                      STANDARD PROCESSING SUBSYSTEM
DATE XX/XX/XX                                   ERROR MESSAGE TABLE                                  PAGE 00009

                  FILE ID           ERROR CODE              ERROR MESSAGE

    * ERROR *       XX                XXX               XXXXXXXXXXXXXXXXXXXXXXXXXXXX
                    XX                XXX               XXXXXXXXXXXXXXXXXXXXXXXXXXXX
                    XX                XXX               XXXXXXXXXXXXXXXXXXXXXXXXXXXX
                    XX                XXX               XXXXXXXXXXXXXXXXXXXXXXXXXXXX
                    XX                XXX               XXXXXXXXXXXXXXXXXXXXXXXXXXXX
                    XX                XXX               XXXXXXXXXXXXXXXXXXXXXXXXXXXX
                    XX                XXX               XXXXXXXXXXXXXXXXXXXXXXXXXXXX
                    XX                XXX               XXXXXXXXXXXXXXXXXXXXXXXXXXXX
                    XX                XXX               XXXXXXXXXXXXXXXXXXXXXXXXXXXX
                    XX                XXX               XXXXXXXXXXXXXXXXXXXXXXXXXXXX
                    XX                XXX               XXXXXXXXXXXXXXXXXXXXXXXXXXXX
                    XX                XXX               XXXXXXXXXXXXXXXXXXXXXXXXXXXX
                    XX                XXX               XXXXXXXXXXXXXXXXXXXXXXXXXXXX
                    XX                XXX               XXXXXXXXXXXXXXXXXXXXXXXXXXXX
                    XX                XXX               XXXXXXXXXXXXXXXXXXXXXXXXXXXX
                    XX                XXX               XXXXXXXXXXXXXXXXXXXXXXXXXXXX
                    XX                XXX               XXXXXXXXXXXXXXXXXXXXXXXXXXXX
                    XX                XXX               XXXXXXXXXXXXXXXXXXXXXXXXXXXX
                    XX                XXX               XXXXXXXXXXXXXXXXXXXXXXXXXXXX
                    XX                XXX               XXXXXXXXXXXXXXXXXXXXXXXXXXXX
                    XX                XXX               XXXXXXXXXXXXXXXXXXXXXXXXXXXX
                    XX                XXX               XXXXXXXXXXXXXXXXXXXXXXXXXXXX
                    XX                XXX               XXXXXXXXXXXXXXXXXXXXXXXXXXXX
                    XX                XXX               XXXXXXXXXXXXXXXXXXXXXXXXXXXX
                    XX                XXX               XXXXXXXXXXXXXXXXXXXXXXXXXXXX
                    XX                XXX               XXXXXXXXXXXXXXXXXXXXXXXXXXXX
                    XX                XXX               XXXXXXXXXXXXXXXXXXXXXXXXXXXX
                    XX                XXX               XXXXXXXXXXXXXXXXXXXXXXXXXXXX
                    XX                XXX               XXXXXXXXXXXXXXXXXXXXXXXXXXXX
                    XX                XXX               XXXXXXXXXXXXXXXXXXXXXXXXXXXX
                    XX                XXX               XXXXXXXXXXXXXXXXXXXXXXXXXXXX
                    XX                XXX               XXXXXXXXXXXXXXXXXXXXXXXXXXXX
                    XX                XXX               XXXXXXXXXXXXXXXXXXXXXXXXXXXX
                    XX                XXX               XXXXXXXXXXXXXXXXXXXXXXXXXXXX
                    XX                XXX               XXXXXXXXXXXXXXXXXXXXXXXXXXXX
                    XX                XXX               XXXXXXXXXXXXXXXXXXXXXXXXXXXX
                    XX                XXX               XXXXXXXXXXXXXXXXXXXXXXXXXXXX
                    XX                XXX               XXXXXXXXXXXXXXXXXXXXXXXXXXXX
                    XX                XXX               XXXXXXXXXXXXXXXXXXXXXXXXXXXX
                    XX                XXX               XXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

MSIS030   1 of 1
                                 10/15/76

Standard Tables Creation
SouthWestern Ohio Regional Computer Center

EXHIBIT MSIS.303

```
                                            MODEL STATE INFORMATION SYSTEM
MSIS030                                      STANDARD PROCESSING SUBSYSTEM

DATE XX/XX/XX                                      CODE VALUE TABLE                                            PAGE 00009

                          DATA ELEMENT
              FILE ID     CATALOGUE NO     DATA ELEMENT LENGTH     DATA ELEMENT VALUE      DATA ELEMENT DESCRIPTION

  * ERROR *     XX            XXX                   X                  XXXXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                XX            XXX                   X                  XXXXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                XX            XXX                   X                  XXXXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                XX            XXX                   X                  XXXXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                XX            XXX                   X                  XXXXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                XX            XXX                   X                  XXXXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                XX            XXX                   X                  XXXXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                XX            XXX                   X                  XXXXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                XX            XXX                   X                  XXXXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                XX            XXX                   X                  XXXXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                XX            XXX                   X                  XXXXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                XX            XXX                   X                  XXXXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                XX            XXX                   X                  XXXXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                XX            XXX                   X                  XXXXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                XX            XXX                   X                  XXXXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                XX            XXX                   X                  XXXXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                XX            XXX                   X                  XXXXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                XX            XXX                   X                  XXXXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                XX            XXX                   X                  XXXXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                XX            XXX                   X                  XXXXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                XX            XXX                   X                  XXXXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                XX            XXX                   X                  XXXXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                XX            XXX                   X                  XXXXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                XX            XXX                   X                  XXXXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                XX            XXX                   X                  XXXXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                XX            XXX                   X                  XXXXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                XX            XXX                   X                  XXXXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                XX            XXX                   X                  XXXXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                XX            XXX                   X                  XXXXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                XX            XXX                   X                  XXXXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                XX            XXX                   X                  XXXXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                XX            XXX                   X                  XXXXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                XX            XXX                   X                  XXXXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                XX            XXX                   X                  XXXXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                XX            XXX                   X                  XXXXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                XX            XXX                   X                  XXXXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                XX            XXX                   X                  XXXXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                XX            XXX                   X                  XXXXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                XX            XXX                   X                  XXXXXXXXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

```
        MSIS030                          1 OF 1
                                         10/5/76
 STANDARD TABLES CREATION MODULE
          SouthWestern Ohio Regional Computer Center
EXHIBIT MSIS.304


                                            MODEL STATE INFORMATION SYSTEM
 MSIS030                                    STANDARD PROCESSING SUBSYSTEM
 DATE XX/XX/XX                                  DATA ELEMENT TABLE                                      PAGE ZZZZ9

                                RECORD INFORMATION                             NAME INFORMATION
                                    START POSITION        FIELD LENGTH
          FILE ID   CATALOGUE NO  TRANSACTION / FILE   TRANSACTION / FILE     MNEMONIC NAME            HISTORY CODE

 "ERROR"    XX         XXX            XX      XXXX        XX       XX         XXXXXXXXXX                   X
            XX         XXX            XX      XXXX        XX       XX         XXXXXXXXXX                   X
            XX         XXX            XX      XXXX        XX       XX         XXXXXXXXXX                   X
```

```
               MSIS050                        1 of 1
                                              10/15/76
   SHF PURGE MODULE
          SouthWestern Ohio Regional Computer Center
EXHIBIT MSIS.305
```

```
MSIS050                                       MODEL STATE INFORMATION SYSTEM
                                               STANDARD PROCESSING SUBSYSTEM
DATE XX/XX/XX
                                             PURGE OF THE STANDARD HISTORY FILE                                PAGE ZZZZ9
                                                     PURGE DATE: XX/XX/XX
    ID                                  ------ DATA ELEMENT ------
FILE/RECORD LAST UPDATE CURRENT UPDATE  MNEMONIC  CATALOGUE NUMBER            OLD VALUE                      NEW VALUE

 XX  XXXXX   XX/XX/XX    XX/XX/XX    XXXXXXXXXX       XXX          XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 XX  XXXXX   XX/XX/XX    XX/XX/XX    XXXXXXXXXX       XXX          XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 XX  XXXXX   XX/XX/XX    XX/XX/XX    XXXXXXXXXX       XXX          XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

```
                MSIS040                          1 OF 1
                                                 10/18/76
SHF SELECTION MODULE
                SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
 EXHIBIT MSIS.306


                                                  MODEL STATE INFORMATION SYSTEM
XXXXXXX ②                                    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX ①

DATE XX/XX/XX                           XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX ③                PAGE ZZZZ9


                                                       SORT SEUUENCE

                                                 MNEMONIC NAME    SORT MODE

                                              1.  XXXXXXXXXX          X
                                              2.  XXXXXXXXXX          X
                                                      |               |
                                                      |               |
                                                      |               |
                                                      |               |
                                             10.  XXXXXXXXXX          X

              RELATION SYMBOLS:   LT = LESS THAN        NL = NOT LESS THAN       EQ = EQUALS
                                  GT = GREATER THAN     NG   NOT GREATER THAN    NX = NOT EXISTS (EMPTY)

                                                      SELECTION CRITERIA

        MNEMONIC   SYMBOL         VALUE                      MNEMONIC   SYMBOL        VALUE

     1. XXXXXXXXXX   XX      XXXXXXXXXXXXXXX            AND  XXXXXXXXXX    XX        XXXXXXXXXXXXXXX           AND
        XXXXXXXXXX   XX      XXXXXXXXXXXXXXX            AND  ...

      * RECORDS SELECTED     ZZZ,ZZ9

     2. XXXXXXXXXX   XX      XXXXXXXXXXXXXXX

      * RECORDS SELECTED     ZZZ,ZZ9

     ** TOTAL RECORDS SELECTED  ZZZ,ZZ9                 % OF WHICH WAS SELECTED  ZZ9 %


          ① SUBSYSTEM NAME
          ② PROGRAM NUMBER
          ③ REPORT NAME
          MSIS040                          1 of 1
                                           10/14/76
SHF Selection Module
          SouthWestern Ohio Regional Computer Center
EXHIBIT MSIS.307
```

```
                                               MODEL STATE INFORMATION SYSTEM
MSIS040
                                                  STANDARD HISTORY PROCESSING
DATE XX/XX/XX                                  SELECTION OF THE STANDARD HISTORY FILE                                PAGE ZZZZ9

   ID                                         -------DATA ELEMENT ------
FILE/RECORD LAST UPDATE CURRENT UPDATE  MNEMONIC  CATALOGUE NUMBER              OLD VALUE                          NEW VALUE

 XX  XXXXX   XX/XX/XX     XX/XX/XX   XXXXXXXXXX      XXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

 XX  XXXXX   XX/XX/XX     XX/XX/XX   XXXXXXXXXX      XXX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

```
                MSIS010                           1 OF 1
                                                  10/28/76
STANDARD ERROR PROCESSING
             SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT MSIS.309

                                                      MODEL STATE INFORMATION SYSTEM
 XXXXXXX ①                                       XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX ②
 DATE XX/XX/XX                         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX ③                     PAGE ZZZZ9

 ***************************************************************************************************************************************
                            XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX ④
                                           XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                           XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX ⑤
                                           XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

                            XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX ④
                                           XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                           XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX ⑤
                                           XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX



 ***************************************************************************************************************************************


           ① PROGRAM NAME

           ② SUBSYSTEM NAME

           ③ REPORT NAME

           ④ IMAGES OF RECORDS THAT ARE IN ERROR - PROC, SEL1, SEL2, SORT, ETC.

           ⑤ ALL ERROR MESSAGES THAT ARE ASSOCIATED WITH EACH RECORD IN ERROR
```

```
          MSIS030                        1 OF 1
                                         10/5/76
 STANDARD TABLES CREATION MODULE
            SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT MSIS.308


                                                MODEL STATE INFORMATION SYSTEM
 MSIS030                                         STANDARD PROCESSING SUBSYSTEM

 DATE XX/XX/XX                                       ERROR IN CARD CODE                                          PAGE ZZZZ9

  *ERROR*          XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

1 of 1
10/28/76

This report is produced by several modules that require a warning report.
SouthWestern Ohio Regional Computer Center
EXHIBIT MSIS.310

```
                                                    MODEL STATE INFORMATION SYSTEM
XXXXXXX ①                                       XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX ②
DATE XX/XX/XX                                    ###### STANDARD WARNING REPORT #######                                  PAGE ZZZZ9
               RECORD ID                            DATA ELEMENT NAME                               WARNING MESSAGE
 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

① Program Name

② Subsystem Name

```
        VARIES                          1 of 1
                                        10/14/76
THE REPORT IS PRODUCED BY SEVERAL MODULES THAT REQUIRE A SORT SEQUENCE REPORT.
            SouthWestern Ohio Regional Computer Center
EXHIBIT MSIS.311


                                           MODEL STATE INFORMATION SYSTEM
 XXXXXXX ①                               XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX ②

 DATE XX/XX/XX                             STANDARD SORT SEQUENCE REPORT                                  PAGE ZZZZ9

                                                  SORT SEQUENCE

                                          MNEMONIC NAME     SORT MODE

                                        1.  XXXXXXXXXX          X
                                        2.  XXXXXXXXXX          X
                                        3.  XXXXXXXXXX          X
                                        4.  XXXXXXXXXX          X
                                        5.  XXXXXXXXXX          X
                                        6.  XXXXXXXXXX          X
                                        7.  XXXXXXXXXX          X
                                        8.  XXXXXXXXXX          X
                                        9.  XXXXXXXXXX          X
                                       10.  XXXXXXXXXX          X



      ① PROGRAM NAME

      ② SUBSYSTEM NAME
```

```
                  VARIES                              1 OF 1
                                                     10/15/76
    THIS REPORT IS PRODUCED BY ANY MODULE THAT NEEDS A SELECTION STATISTICS REPORT.
               SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
    EXHIBIT MSIS.312


    XXXXXXX ①                                        MODEL STATE INFORMATION SYSTEM
                                                     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX    ②
    DATE XX/XX/XX                                    STANDARD SELECTION STATISTICS REPORT                     PAGE ZZZZ9


               RELATION SYMBOLS:   LT = LESS THAN          NL = NOT LESS THAN         EQ = EQUALS
                                   GT = GREATER THAN       NG = NOT GREATER THAN      NX = NOT EXITS (EMPTY)

                                                                SELECTION CRITERIA

         MNEMONIC    SYMBOL         VALUE                        MNEMONIC    SYMBOL          VALUE

      1. XXXXXXXXXX    XX          XXXXXXXXXXXXXXX          AND  XXXXXXXXXX    XX       XXXXXXXXXXXXXXX            AND
         XXXXXXXXXX    XX          XXXXXXXXXXXXXXX          AND  ...

       * RECORDS SELECTED          ZZZ,ZZ9

      2. XXXXXXXXXX    XX          XXXXXXXXXXXXXXX

       * RECORDS SELECTED          ZZZ,ZZ9

      ** TOTAL RECORDS SELECTED    ZZZ,ZZ9                  % OF FILE WHICH WAS SELECTED  ZZ9 %



      ①  PROGRAM NAME
      ②  SUBSYSTEM NAME
```

```
             MSIS010                             1 OF 1
                                                 11/18/76
STANDARD ERROR PROCESSING MOD LE
           SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT MSIS.313


                                                   MODEL STATE INFORMATION SYSTEM
MSIS010                                             STANDARD PROCESSING SUBSYSTEM

DATE XX/XX/XX                                         DATA ENTRY ERROR REPORT                                           PAGE ZZZZ9
                                           FOR SUBSYSTEM:  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX    ①


ERROR                                                                                      DATA
NUMBER 2345678901234567890123456789012345678901234567890123456789012345678901234567890   ELEMENT COLUMNS        EXPLANATIONS

 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXX XX-XX XXXXXXXXXXXXXXXXXXXXXXXXXXXX   ②
```

① X'S WILL BE REPLACED BY ONE OF THE FOLLOWING:

A. PUBLIC WATER SYSTEM INVENTORY
B. WATER QUALITY COMPLIANCE
C. REGULATIONS
D. VARIANCES AND EXEMPTIONS
E. ENFORCEMENT ACTIONS
F. OPERATOR AND MAILING
G. STANDARD PROCESSING

② SEE ATTACHED SHEETS FOR ERROR DESCRIPTIONS

```
                VAEX020                          1 OF 1
                                                10-18-76
COMPLIANCE  SCHEDULE REPORT MODULE
             SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT VAEX.302

                                                   MODEL STATE INFORMATION SYSTEM
VAEX020                                          VARIANCES AND EXEMPTIONS SUBSYSTEM

DATE XX/XX/XX                                        COMPLIANCE SCHEDULE REPORT                                         PAGE ZZZZ9
                                                FOR THE PERIOD XX/XX/XX TO XX/XX/XX

REGION: XX       DISTRICT: XX                                          VARIANCE/        V/E                  DESCRIPTION
                              PUBLIC WATER SYSTEM                      EXEMPTION       STATUS
VE-ID     PWS-ID              NAME AND ADDRESS                         XXXXXXXXX          X

XXXXX     XXXXXXX       XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX                                              XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                        XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX                                              XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                        XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XX XXXXX                                     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                                    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                                    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                                    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                                    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                                    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                                    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                                    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                                    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                                    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                                    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                                    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                                    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                                    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

                                                                             MILESTONE
                                                                                 CODE                    MILESTONE DESCRIPTION

           TARGET DATE: XX/XX/XX                             REPEATING           XX                XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                                    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                                    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                                    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX


           TARGET DATE: XX/XX/XX                                                 XX                XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                                    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                                    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                                    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX


           TARGET DATE: XX/XX/XX                                                 XX                XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                                    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                                    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                                    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

```
          VAEX020                         1 OF 1
                                          1/11/77
COMPLIANCE SCHEDULE REPORT MODULE
          SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT VAEX.303


                                              MODEL STATE  INFORMATION SYSTEM
VAEX020                                    VARIANCES AND EXEMPTIONS SUBSYSTEM

DATE XX/XX/XX                                    COMPLIANCE SCHEDULE REPORT                        PAGE 22229
                                           FOR THE PERIOD  XX/XX/XX TO XX/XX/XX


          PWS-ID: XXXXXXX
                                                                   MILESTONE
                                                                     CODE                MILESTONE DESCRIPTION

          TARGET DATE: XX/XX/XX                     REPEATING        XX             XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                    XXXXXXXXXXXXXXXXXXXAXXXXXXXXXX
                                                                                    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX


          TARGET DATE: XX/XX/XX                                      XX             XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

```
               VAEX030                            1 OF 1
                                                  1/11/77
COMPLIANCE SCHEDULE IN ARREARS REPORT MODULE
           SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT VAEX.304


                                                   MODEL STATE INFORMATION SYSTEM
VAEX030                                          VARIANCES AND EXEMPTIONS SUBSYSTEM

DATE XX/XX/XX                                       COMPLIANCE IN ARREARS REPORT                                       PAGE 22229

REGION: XX       DISTRICT: XX

                              PUBLIC WATER SYSTEM                      VARIANCE/       V/E
VE-ID     PWS-ID              NAME AND ADDRESS                         EXEMPTION       STATUS              DESCRIPTION

XXXXX     XXXXXXX        XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX                XXXXXXXXX          X          XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX                                              XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XX XXXXX                                     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                                     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                                     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                                     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                                     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                                     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                                     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                                     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                                     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                                     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                                     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                                     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                                     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                                     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

                                           DELAY                           MILESTONE
TARGET DATE      LAG(MONTHS)               CODE                              CODE                MILESTONE DESCRIPTION

  XX/XX/XX           XX                      X              REPEATING         XX             XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                             XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                             XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                             XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX


  XX/XX/XX           XX                      X                                XX             XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                             XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                             XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                             XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX


  XX/XX/XX           XX                      X                                XX             XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                             XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                             XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                             XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
               VAEX030                          1 OF 1
                                                1/11/77
COMPLIANCE SCHEDULE IN ARREARS REPORT MODULE
           SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT VAEX.305

                                                   MODEL STATE INFORMATION SYSTEM
                                                 VARIANCES AND EXEMPTIONS SUBSYSTEM
VAEX030
                                                    COMPLIANCE IN ARREARS REPORT                                       PAGE ZZZZ9
DATE XX/XX/XX


  PWS-ID: XXXXXXX
                                           DELAY                              MILESTONE
TARGET DATE       LAG(MONTHS)              CODE                                 CODE                    MILESTONE DESCRIPTION
  XX/XX/XX            XX                      X              REPEATING           XX                 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                                    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                                    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                                    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

  XX/XX/XX            XX                      X                                  XX                 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                                    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                                    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                                                    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX



           *    TOTAL PWS IN ARREARS FOR DISTRICT XX: ZZZZ9

           **   TOTAL PWS IN ARREARS FOR REGION   XX: ZZZZ9

           ***  TOTAL PWS IN ARREARS FOR STATE    XX: ZZZZ9
```

VAEX041 1 of 1
1/11/77

CONDENSED REPORT MODULE
SouthWestern Ohio Regional Computer Center

EXHIBIT VAEX.306

```
                                                  MODEL STATE INFORMATION SYSTEM
VAEX041                                         VARIANCES AND EXEMPTIONS SUBSYSTEM

DATE xx/xx/xx                                            CONDENSED REPORT                                             PAGE ZZZZ9

 VE    REF  V/E  EFFECTIVE EXPIR.  V/E  CONT           TREATMENT REASON   LAST    NEXT
 ID     ID  TYPE  DATE     DATE  STATUS  ID     MCL       CODE    CODE   UPDATE   TARGET  PWS-ID        PWS NAME

xxxxx xxxxx  x   xx/xx/xx xx/xx/xx  x    xxxx xxxxxxxxxx  xxx     xx   xx/xx/xx xx/xx/xx xxxxxxx  xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

xxxxx xxxxx  x   xx/xx/xx xx/xx/xx  x    xxxx xxxxxxxxxx  xxx     xx   xx/xx/xx xx/xx/xx xxxxxxx  xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
              VAEX050                    1 OF 1
                                         1/11/77
CASE HISTORY REPORT MODULE
          SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT VAEX.307

                                                      MODEL STATE INFORMATION SYSTEM
                                                    VARIANCES AND EXEMPTIONS SUBSYSTEM
VAEX050
                                                             CASE HISTORY REPORT                                      PAGE ZZZZ9
DATE XX/XX/XX

PWS-ID: XXXXXXX    PWS NAME: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX         PHONE: (XXX) XXX-XXXX      REGION: XX     DISTRICT: XX
                   ADDRESS:  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                             XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XX XXXXX

   V & E ID: XXXXX    REFERENCE ID: XXXXX       TYPE OF V & E: X              EFFECTIVE DATE: XX/XX/XX   EXPIRATION DATE: XX/XX/XX

   V & E STATUS: X    TREATMENT INVOLVED: XXX   ALTERNATE TREATMENT: XXX      CONTAMINANT ID: XXXX       MODIFIED MCL:  XXXXXXXXXX

   REASON CODE: XX    MODIFIED FREQUENCY: XXX                                                            LAST UPDATE DATE: XX/XX/XX
                                                DESCRIPTION:    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                                                XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

 MILESTONE   TARGET    ATTAINED             MILESTONE DESCRIPTION             LAG              DELAY           REPEAT
   CODE       DATE       DATE                                               (MONTHS)            CODE          (MONTHS)

    XX      XX/XX/XX   XX/XX/XX       XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX          XX                X               XX
                                      XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                      XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                      XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

    XX      XX/XX/XX   XX/XX/XX       XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX          XX                X               XX
                                      XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                      XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                      XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

```
             VAEX050                      1 OF 1
                                          10-27-76
    CASE HISTORY REPORT MODULE

            SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
    EXHIBIT VAEX.308


                                                  MODEL STATE INFORMATION SYSTEM
   VAEX050                                     VARIANCES ANI EXEMPTIONS SUBSYSTEM

   DATE XX/XX/XX                                      CASE HISTORY REPORT                                           PAGE ZZZZ9

   PWS-ID: XXXXXXX

    MILESTONE  TARGET     ACTUAL                 MILESTONE DESCRIPTION           LAG              DELAY           REPEAT
      CODE      DATE       DATE                                               (MONTHS)            CODE           (MONTHS)

      XX     XX/XX/XX   XX/XX/XX         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX         XX                X               XX
                                         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                         XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

```
          ENAC030                     1 OF 1
                                      2/15/77
CASE HISTORY REPORT MODULE
          SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
 EXHIBIT ENAC.300


                                        MODEL STATE INFORMATION SYSTEM
ENAC030                                 ENFORCEMENT ACTIONS SUBSYSTEM

DATE XX/XX/XX                       ENFORCEMENT ACTIONS CASE HISTORY REPORT                             PAGE ZZZZ9

      CASE NAME: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX    CASE REFERENCE: XXXXXXXXXXXX    REASON FOR REPORTING: XXXXXXXXXXXXXXX

CASE-ID: XXXXX    ACTION DATE: XX/XX/XX    CASE STATUS: XXXXXX  PWS-ID: XXXXXXX    PWS NAME: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

DATE OF LAST UPDATE: XX/XX/XX                LEGAL STATUS: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX    PWS STATE: XX

           PLAINTIFF NAME: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX      PLAINTIFF TYPE: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

           DEFENDANT NAME: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX      DEFENDANT TYPE: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

VIOLATIONS INVOLVED:   DATE              TYPE              CONTAMINANT ID                  ABSTRACT AND REMARKS

                     XX/XX/XX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX      XXXX              XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                     XX/XX/XX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX      XXXX              XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX



  CONSENT ORDER NUMBER: XXXXXXX  CONSENT DATE: XX/XX/XX          PERMIT NUMBER: XXXXXXX   PERMIT DATE: XX/XX/XX

MILESTONE HISTORY:            MILESTONE                   TARGET DATE    ATTAINED DATE

                     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX      XX/XX/XX       XX/XX/XX
                     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX      XX/XX/XX       XX/XX/XX
                     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX      XX/XX/XX       XX/XX/XX
```

```
        ENACO40                         1 OF 1
                                        2/8/77
CONDENSED REPORT MODULE
      SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT ENAC.301

                                                      MODEL STATE INFORMATION SYSTEM
ENACO40                                               ENFORCEMENT ACTIONS SUBSYSTEM

DATE XX/XX/XX                                     ENFORCEMENT ACTIONS CONDENSED REPORT                                      PAGE ZZZZ9

                                                                                                                  ****** VIOLATIONS ********
 CASE      CASE                 CASE                        PLAINTIFF  DEFENDANT  ACTION    CASE     PWS-ID        DATE    TYPE  CONTAMINANT
  ID     REFERENCE              TITLE                         TYPE       TYPE      DATE    STATUS
                                                                                                 ③
XXXXX  XXXXXXXXXXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX          X          X      XX/XX/XX  XXXXXX  XXXXXXX  XX/XX/XX  XX      XXXX ①
                                                                                                          XX/XX/XX  XX      XXXX
                                                                                                          XX/XX/XX  XX      XXXX
                                                                                                 ③
XXXXX  XXXXXXXXXXXX  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX          X          X      XX/XX/XX  XXXXXX  XXXXXXX  XX/XX/XX  XX      XXXX
*** NUMBER OF ACTIONS FOR PWS: 99999 *** ②
```

① THERE MAY BE UP TO TEN VIOLATIONS PER ENFORCEMENT ACTION

② THIS TOTAL IS ONLY CALCULATED AND PRINTED
IF THE MAJOR SORT KEY WAS PWS-ID

③ X'S TO BE REPLACED BY OPEN OR CLOSED

```
        SRVY020                          1 OF 1
                                         4/1/77
   SCHEDULE REPORT MODULE
         SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
  EXHIBIT SRVY.300


                                               MODEL STATE INFORMATION SYSTEM
  SRVY020                                        SANITARY SURVEY SUBSYSTEM                                   PAGE ZZZZ9
                                                      PRIORITY REPORT

     SELECTION WEIGHTS:  PWS TYPE - X.X   POPULATION SERVED - X.X   COMPLIANCE - X.X   LAST SURVEY DATE - X.X   TYPE SOURCE - X.X

                                                                                       VIOLATIONS  LAST
  REGION/                                                                    PWS  POPULATION  IN LAST   SURVEY   TYPE   SELECTION
  DISTRICT      PWS NAME                          ADDRESS                    TYPE   SERVED   TWO YEARS   DATE   SOURCE     KEY

  XX / XX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX        X   XXXXXXXXX     XX     XX/XX/XX XXXXXXX   X.XXXX
          PWS-ID: XXXXXXX                XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XX XXXXX

  XX / XX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX        X   XXXXXXXXX     XX     XX/XX/XX XXXXXXX   X.XXXX
          PWS-ID: XXXXXXX                XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XX XXXXX
```

```
                SRVY020                            1 OF 1
                                                   4/1/77
      SCHEDULE REPORT MODULE
               SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
EXHIBIT SRVY.301


                                                      MODEL STATE INFORMATION SYSTEM
   SRVY020                                              SANITARY SURVEY SUBSYSTEM
                                                             SCHEDULE REPORT                                               PAGE ZZZZ9

                                           FROM XX/XX/XX   TO XX/XX/XX      SURVEYING CAPACITY: XXXX

        SELECTION WEIGHTS:  PWS TYPE - X.X   POPULATION SERVED - X.X   COMPLIANCE - X.X   LAST SURVEY DATE - X.X   TYPE SOURCE - X.X

                                                                                                   VIOLATIONS  LAST
     REGION/                                                                       PWS  POPULATION  IN LAST  SURVEY   TYPE   SELECTION
     DISTRICT      PWS NAME                       ADDRESS                          TYPE  SERVED    TWO YEARS   DATE   SOURCE    KEY

     XX / XX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX        X    XXXXXXXXX    XX     XX/XX/XX XXXXXXX   X.XXXX
             PWS-ID: XXXXXXX                XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XX XXXXX

     XX / XX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX        X    XXXXXXXXX    XX     XX/XX/XX XXXXXXX   X.XXXX
             PWS-ID: XXXXXXX                XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XX XXXXX
```

OPER030 1 of 1
11/15/76

Operator Report Program
SouthWestern Ohio Regional Computer Center

EXHIBIT OPER.300

```
OPER030                                        MODEL STATE INFORMATION SYSTEM
DATE XX/XX/XX
                                               OPERATOR AND MAILING SUBSYSTEM                                 PAGE ZZZZ9
                                                 XXXXXXXXXXXXXXXXXXXXXXXXX    ①

  ID        NAME                           STREET
                                           CITY                    STATE  ZIP  CERTIFICATE   PWS        CLASS      RENEWAL   XXXXXXX ②
                                                                                 NUMBER      ID     A B C D E F     DATE    XXXXXXX ③
XXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
      PHONE: (XXX) XXX-XXXX          XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX  XX   XXXXX   XXXXXXX   XXXXXXX  X X X X X X  XX/XX/XX XXXXXXXXXX

XXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
      PHONE: (XXX) XXX-XXXX          XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX  XX   XXXXX   XXXXXXX   XXXXXXX  X X X X X X  XX/XX/XX XXXXXXXXXX
                                                                                                                           ↑
                                                                                                                      INCOMPLETE
                                                                                                                      NEW
                                                                                                                      DELETION
```

① REPORT TITLE

② LISTING REASON FIELD - HEADER1

③ LISTING REASON FIELD - HEADER2

OPER030 1 of 1
1/12/77

OPERATOR REPORT MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER

EXHIBIT OPER.301

```
                                                  MODEL STATE INFORMATION SYSTEM
OPER030
DATE XX/XX/XX                                     OPERATOR AND MAILING SUBSYSTEM                                PAGE ZZZZ9
                                                    XXXXXXXXXXXXXXXXXXXXXXXXXXX  ①

 ID       NAME                             STREET
                                           CITY                      STATE  ZIP   CERTIFICATE  PWS       CLASS      RENEWAL  XXXXXXX ②
                                                                                    NUMBER     ID     A B C D E F    DATE   XXXXXXX ③
XXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
      PHONE: (XXX) XXX-XXXX          XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX  XX    XXXXX   XXXXXXX   XXXXXXX  X X X X X X  XX/XX/XX

XXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
      PHONE: (XXX) XXX-XXXX          XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX  XX    XXXXX   XXXXXX    XXXXXXX  X X X X X X  XX/XX/XX
```

① REPORT TITLE

② LISTING REASON FIELD - HEADER1

③ LISTING REASON FIELD - HEADER2

```
                OPER040                     1 OF 1
                                            1/12/77
      DISTRIBUTION REPORT MODULE
           SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER
      EXHIBIT OPER.302
```

```
OPER040                                       MODEL STATE INFORMATION SYSTEM
DATE XX/XX/XX                                 OPERATOR ANF MAILING SUBSYSTEM                                      PAGE ZZZZ9
                                               MAILING  DISTRIBUTION REPORT

               ID   TYPE        NAME                                    STREET
                                                                         CITY                      STATE  ZIP

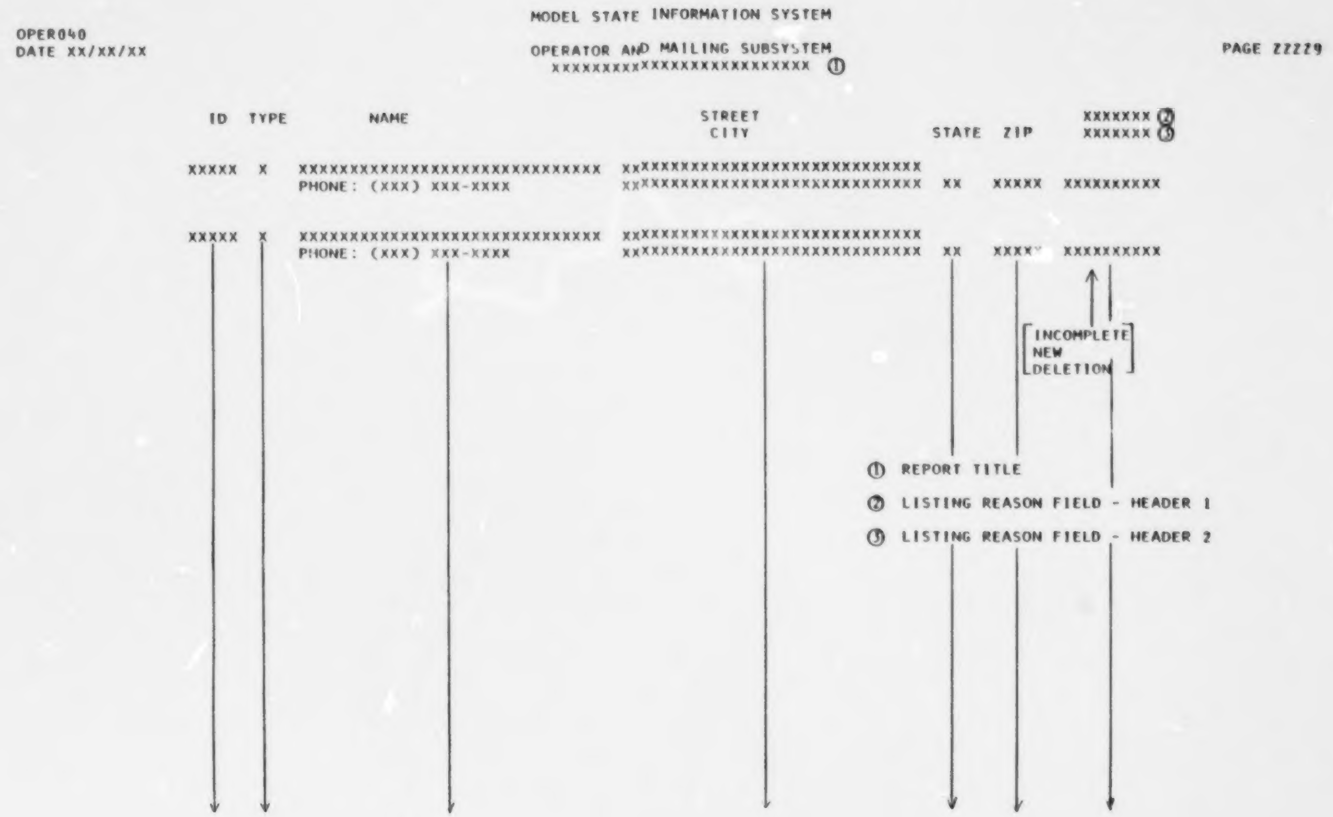
               XXXXX  X    XXXXXXXXXXXXXXXXXXXXXXXXXXXXX   XXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                           PHONE: (XXX) XXX-XXXX           XXXXXXXXXXXXXXXXXXXXXXXXXXXXX  XX   XXXXX

               XXXXX  X    XXXXXXXXXXXXXXXXXXXXXXXXXXXXX   XXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                           PHONE: (XXX) XXX-XXXX           XXXXXXXXXXXXXXXXXXXXXXXXXXXXX  XX   XXXXX
```

OPER040 1 OF 1
1/12/77

DISTRIBUTION REPORT MODULE
SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER

EXHIBIT OPER.303



```
OPER040                                        MODEL STATE INFORMATION SYSTEM
DATE XX/XX/XX                                  OPERATOR AND MAILING SUBSYSTEM                                  PAGE ZZZZ9
                                                 XXXXXXXXXXXXXXXXXXXXXXXXXX ①

                ID  TYPE      NAME                                    STREET                               XXXXXXX ②
                                                                       CITY                STATE  ZIP      XXXXXXX ③

               XXXXX  X   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                          PHONE: (XXX) XXX-XXXX            XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX  XX   XXXXX  XXXXXXXXXX

               XXXXX  X   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                          PHONE: (XXX) XXX-XXXX            XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX  XX   XXXXX  XXXXXXXXXX
```

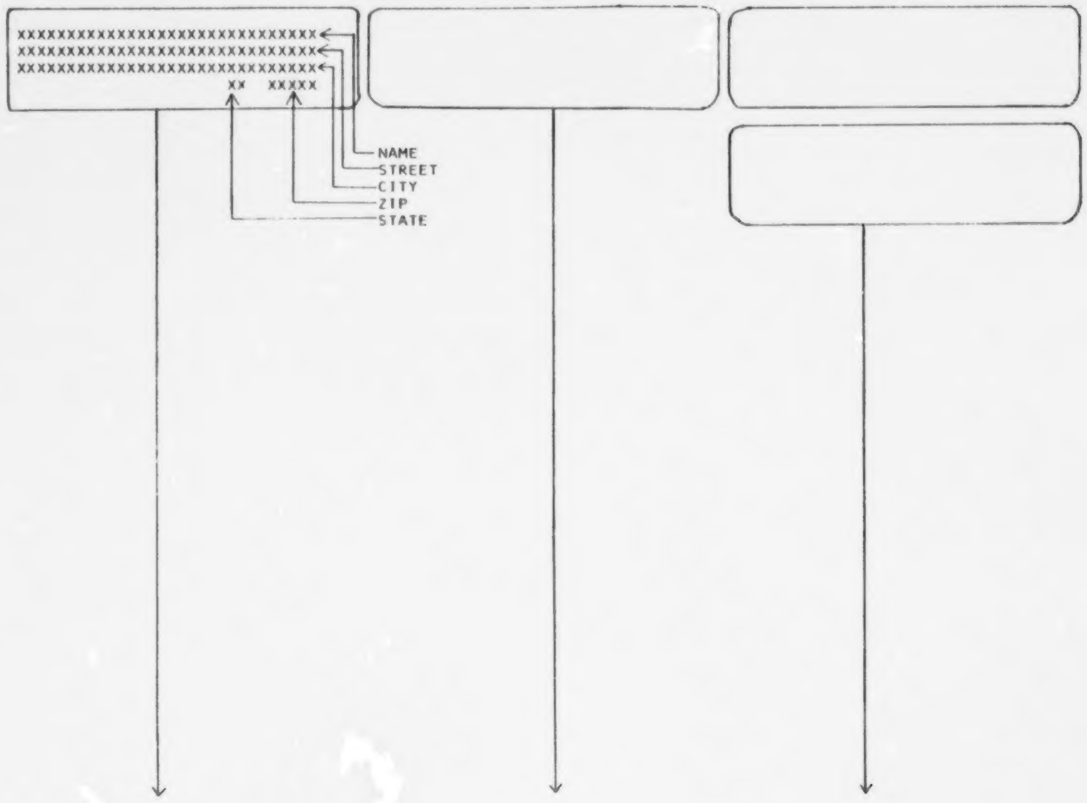
① REPORT TITLE
② LISTING REASON FIELD - HEADER 1
③ LISTING REASON FIELD - HEADER 2

OPER050 1 OF 1
1/12/77

MAILING LABEL MODULE

SOUTHWESTERN OHIO REGIONAL COMPUTER CENTER

EXHIBIT OPER.304


XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XX XXXXX
NAME
STREET
CITY
ZIP
STATE

```
                                        MODEL STATE INFORMATION SYSTEM
MS13030                                 STANDARD PROCESSING SUBSYSTEM
                                                                                          PAGE    1
DATE 05/11/77                                ERROR MESSAGE TABLE

                                                                  ERROR MESSAGE
              FILE ID              ERROR CODE
                                                         REJECT-INVALID RECORD-ID
                MS                    001                REJECT-RECORD ALREADY EXISTS
                MS                    002                REJECT-NO MATCHING RECORD-ID
                MS                    003                REJECT-RECORD IS INCOMPLETE
                MS                    004                REJECT-CONTAM ID INVALID
                MS                    005                REJECT-STATE VALUE TOO LOW
                MS                    006                REJECT-STATE VALUE TOO HIGH
                MS                    007                REJECT-FED. RECORD MISSING
                MS                    008                REJECT-REC. HAS INVALID DATA
                MS                    009                REJECT-NOT NUMERIC
                MS                    010                REJECT-VALUE UNNACCEPTABLE
                MS                    011                REJECT-VALUE TOO HIGH
                MS                    012                REJECT-VALUP TOO LOW
                MS                    013                REJECT-NOT IN CODE TABLE
                MS                    014                REJECT-PWS ID INVALID
                MS                    015                REJECT-LAB NOT AUTHORIZED
                MS                    016                REJECT-INVALID TRANSACT CODE
                MS                    017                REJECT-REQUIRED DATA MISSING
                MS                    018                REJECT-NO MATCHING MILESTONE
                MS                    019                REJECT-INVALID DELETE CODE
                MS                    020                REJECT-INVALID CREATE CODE
                MS                    021                REJECT-TOO MANY VIOLATIONS
                MS                    022                REJECT-NO MATCHING VIOLATION
                MS                    023                REJECT-INVALID REQUEST CODE
                MS                    024                REJECT-TOO MANY MILESTONES
                MS                    025                REJECT-INVALID OCCURRENCE
                MS                    026                REJECT-METHOD NOT ON TABLE
                MS                    027                REJECT-DUPLICATE MILESTONE
                MS                    028                REJECT-ILLEGAL DELETION
                MS                    029                REJECT-ASSOC VALUE MISSING
                MS                    030                REJECT-TOO MANY CONTAMINANTS
                MS                    031                REJECT-NO MATCHING CONTAMNT
                MS                    032                REJECT-INVALID DATE
                MS                    033                REJECT-DUPLICATE LAB ID
                MS                    034                WARNING-CHECK ELEMENT VALUE
                MS                    101                WARNING-ELEMENT EXCEEDS MAX
                MS                    102                WARNING-ELEMENT BELOW MIN
                MS                    103                WARNING-NOT IN CODE TABLE
                MS                    104                WARNING-NOT IN DATA ELE TBL
                MS                    105                WARNING-DEFAULT VALUE USED
                MS                    106                WARNING-NOT NUMERIC
                MS                    107                WARNING-VALUE TOO LOW
                MS                    108                INVALID-NOT NUMERIC
                MS                    401                INVALID-NOT IN CODE TABLE
                MS                    402                INVALID-NOT A VALID DATE
                MS                    403                INVALID-ELEMENT EXCEEDS MAX
                MS                    404                INVALID-ELEMENT BELOW MIN
                MS                    405                INVALID-ELEMENT MISSING
                MS                    406                INVALID-VALUE UNNACCEPTABLE
                MS                    407                INVALID-NOT ALPHABETIC
                MS                    408
```

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                                          MODEL STATE INFORMATION SYSTEM
MSI8039                                   STANDARD PROCESSING SUBSYSTEM

DATE 05/11/77                                 ERROR MESSAGE TABLE                                  PAGE     2

                 FILE ID             ERROR CODE                     ERROR MESSAGE

                   MS                   409               INVALID-NOT ON PUB WATER TBL
                   MS                   410               INVALID-ASSOC VALUE MISSING
                   MS                   411               INVALID-CANNOT ACCESS LST
                   MS
```

MSIS030 MODEL STATE INFORMATION SYSTEM
STANDARD PROCESSING SUBSYSTEM

DATE 05/11/77 CODE VALUE TABLE PAGE 1

FILE ID	DATA ELEMENT CATALOGUE NO	DATA ELEMENT LENGTH	DATA ELEMENT VALUE	DATA ELEMENT DESCRIPTION
EA	435	1	A	MUNICIPAL AUTHORITY
EA	435	1	C	CONSERVATION ORGANIZATION
EA	435	1	F	FEDERAL GOVERNMENT
EA	435	1	G	GROUP ACTION
EA	435	1	I	INDUSTRIAL ORGANIZATION
EA	435	1	M	MUNICIPAL GOVERNMENT
EA	435	1	N	COUNTY GOVERNMENT
EA	435	1	O	OTHER ORGANIZATION
EA	435	1	P	PRIVATE CITIZEN
EA	435	1	S	STATE GOVERNMENT
EA	435	1	W	WATER SUPPLY OWNER
EA	435	1	0	OTHER ORGANIZATION
EA	435	1	1	INDUSTRIAL ORGANIZATION
EA	437	1	F	FEDERAL POLLUTION SOURCE
EA	437	1	I	INDUSTRIAL POLLUTION SOURCE
EA	437	1	M	MUNICIPAL POLLUTION SOURCE
EA	437	1	N	COUNTY POLLUTION SOURCE
EA	437	1	O	OTHER POLLUTION SOURCE
EA	437	1	P	PRIVATE CITIZEN
EA	437	1	S	STATE POLLUTION SOURCE
EA	437	1	W	WATER SUPPLY OWNER
EA	437	1	0	OTHER POLLUTION SOURCE
EA	437	1	1	INDUSTRIAL POLLUTION SOURCE
EA	447	1	A	PRELIMINARY MOTIONS FILED
EA	449	1	B	SUMMARY MOTION FILED
EA	449	1	C	ORDER,INJUNCTION,TRO FINAL
EA	449	1	D	JUDGEMENT
EA	449	1	E	PENALTY
EA	449	1	F	CONSENT AGREEMENT SIGNED
EA	449	1	G	POST TRIAL MOTIONS FILED
EA	449	1	H	NOTICE OF APPEAL
EA	449	1	I	CIVIL ACTION
EA	449	1	J	STAY PENDING APPEAL
EA	449	1	K	APPEAL PENDING
EA	449	1	L	APPEAL RESOLVED
EA	449	1	M	COMPLIANCE ACHIEVED
EA	449	1	N	COMPLAINT FILED
EA	449	1	O	OTHER
EA	449	1	Z	PENDING DELETION
EA	449	1	0	OTHER
EA	449	1	1	CIVIL ACTION
EA	449	1	2	COMPLAINT FILED
EA	449	1	3	BRIEFS FILED
EA	449	1	4	PRETRIAL HELD
EA	449	1	5	HEARING SCHEDULED
EA	449	1	6	HEARING HELD
EA	449	1	7	ORAL ARGUMENTS HEARD

```
                                     MODEL STATE INFORMATION SYSTEM
MSI8030                              STANDARD PROCESSING SUBSYSTEM
                                                                                          PAGE    2
DATE 05/11/77                               CODE VALUE TABLE

                       DATA ELEMENT
          FILE ID      CATALOGUE NO      DATA ELEMENT LENGTH      DATA ELEMENT VALUE          DATA ELEMENT DESCRIPTION
            EA             449                    1                       8                INJUCTION REQUESTED
            EA             449                    1                       9                TRO REQUESTED
```

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MSI8030                                         MODEL STAT  INF     IN
                                                STANDARD PROCESSING SUBSYSTEM
DATE 05/11/77                                          CODE VALUE TABLE                                               PAGE    1

                      DATA ELEMENT
          FILE ID     CATALOGUE NO     DATA ELEMENT LENGTH      DATA ELEMENT VALUE         DATA ELEMENT DESCRIPTION

            LB            321                  1                        C                  COMMERCIAL
            LB            321                  1                        D                  DAIRY
            LB            321                  1                        F                  FEDERAL INSTALLATION
            LB            321                  1                        G                  FEDERAL OTHER
            LB            321                  1                        H                  HEALTH FACILITY
            LB            321                  1                        I                  INDIAN  RESERVATION
            LB            321                  1                        L                  LOCAL
            LB            321                  1                        O                  OTHER
            LB            321                  1                        P                  PRIVATE
            LB            321                  1                        S                  STATE
            LB            321                  1                        U                  UNIVERSITY
            LB            321                  1                        W                  PUBLIC WATER SUPPLY
            LB            321                  1                        0                  OTHER
            LB            321                  1                        1                  INDIAN  RESERVATION
            LB            820                  3                       001                 NEPHELOMETRIC
            LB            820                  3                       101                 ATOMIC ABSORPTION
            LB            820                  3                       103                 FLAMELESS ATOMIC ABSORPTION
            LB            820                  3                       105                 BRUCINE COLORIMETRIC
            LB            820                  3                       107                 ELECTRODE
            LB            820                  3                       109                 CADMIUM REDUCTION
            LB            820                  3                       111                 COLORIMETRIC,PRELIM DISTILL,
            LB            820                  3                       201                 ORGANOCHLORINE PESTICIDES
            LB            820                  3                       203                 CHLORINATED PHENOXY&HERBICIDES
            LB            820                  3                       301                 DPN - CHLORINE RESIDUAL
            LB            820                  3                       303                 MEMBRANE FILTER
            LB            820                  3                       305                 FERMENTATION TUBE - 10 ML
            LB            820                  3                       307                 FERMENTATION TUBE - 100 ML
            LB            820                  3                       401                 GROSS ALPHA & BETA, METHOD 302
            LB            820                  3                       403                 STRONTIUM-89,90, METHOD 303
            LB            820                  3                       405                 TOTAL RADIUM, METHOD 304
            LB            820                  3                       407                 RADIUM-226, METHOD 305
            LB            820                  3                       409                 TRITIUM, METHOD 306
            LB            820                  3                       411                 CESIUM-134, ASTM D-2459
            LB            820                  3                       413                 URANIUM, ASTM D-2907
            LB            820                  3                       999                 OTHER
```

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                                              MODEL STATE INFORMATION SYSTEM
MSIS030                                       STANDARD PROCESSING SUBSYSTEM

DATE 05/11/77                                      CODE VALUE TABLE                                           PAGE     1

                     DATA ELEMENT
         FILE ID     CATALOGUE NO      DATA ELEMENT LENGTH      DATA ELEMENT VALUE         DATA ELEMENT DESCRIPTION

           MS            001                    4                      0100              TURBIDITY
           MS            001                    4                      1005              ARSENIC
           MS            001                    4                      1010              BARIUM
           MS            001                    4                      1015              CADMIUM
           MS            001                    4                      1020              CHROMIUM
           MS            001                    4                      1025              FLUORIDE
           MS            001                    4                      1030              LEAD
           MS            001                    4                      1035              MERCURY
           MS            001                    4                      1040              NITRATE (AS N)
           MS            001                    4                      1045              SELENIUM
           MS            001                    4                      1050              SILVER
           MS            001                    4                      1055              ADDL CHEM 1
           MS            001                    4                      1060              ADDL CHEM 2
           MS            001                    4                      2005              ENDRIN
           MS            001                    4                      2010              LINDANE
           MS            001                    4                      2015              METHOXYCHLOR
           MS            001                    4                      2020              TOXAPHENE
           MS            001                    4                      2035              ADDL CHEM 3
           MS            001                    4                      2040              ADDL CHEM 4
           MS            001                    4                      2105              2,4 - D
           MS            001                    4                      2110              2,4,5 - TP SILVEX
           MS            001                    4                      3000              COLIFORM
           MS            001                    4                      4000              GROSS ALPHA PARTICLE ACTIVITY
           MS            001                    4                      4010              COMBINED RADIUM
           MS            001                    4                      4020              RADIUM-226
           MS            001                    4                      4030              RADIUM-228
           MS            001                    4                      4100              GROSS BETA PARTICLE ACTIVITY
           MS            001                    4                      4102              TRITIUM
           MS            001                    4                      4128              23-VANADIUM-48
           MS            001                    4                      4136              26-IRON-59
           MS            001                    4                      4142              27-COBALT-60
           MS            001                    4                      4146              28-NICKEL-63
           MS            001                    4                      4172              38-STRONTIUM-89
           MS            001                    4                      4174              38-STRONTIUM-90
           MS            001                    4                      4176              39-YTTRIUM-90
           MS            001                    4                      4178              39-YTTRIUM-91
           MS            001                    4                      4184              40-ZIRCONIUM-95
           MS            001                    4                      4188              41-NIOBIUM-95
           MS            001                    4                      4200              43-TECHNETIUM-99
           MS            001                    4                      4206              44-RUTHENIUM-103
           MS            001                    4                      4208              44-RUTHENIUM-106
           MS            001                    4                      4220              47-SILVER-110
           MS            001                    4                      4262              53-IODINE-129
           MS            001                    4                      4264              53-IODINE-131
           MS            001                    4                      4270              55-CESIUM-134
           MS            001                    4                      4306              63-EUROPIUM-154
           MS            082                    1                      O                 OTHER
```

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MSI8030                                     MODEL STATE INFORMATION SYSTEM
                                            STANDARD PROCESSING SUBSYSTEM
DATE 05/11/77                                      CODE VALUE TABLE                                        PAGE     2

                          DATA ELEMENT
              FILE ID     CATALOGUE NO      DATA ELEMENT LENGTH     DATA ELEMENT VALUE        DATA ELEMENT DESCRIPTION

                MS            082                   1                       R                 REACTOR FACILITY
                MS            082                   1                       W                 WASTE STORAGE/REPROCESSING
                MS            082                   1                       O                 OTHER
                MS            149                   2                       AK                ALASKA
                MS            149                   2                       AL                ALABAMA
                MS            149                   2                       AR                ARKANSAS
                MS            149                   2                       AS                AMERICAN SAMOA
                MS            149                   2                       AZ                ARIZONA
                MS            149                   2                       CA                CALIFORNIA
                MS            149                   2                       CO                COLORADO
                MS            149                   2                       CT                CONNECTICUT
                MS            149                   2                       DC                DISTRICT OF COLUMBIA
                MS            149                   2                       DE                DELAWARE
                MS            149                   2                       FL                FLORIDA
                MS            149                   2                       GA                GEORGIA
                MS            149                   2                       GU                GUAM
                MS            149                   2                       HI                HAWAII
                MS            149                   2                       IA                IOWA
                MS            149                   2                       ID                IDAHO
                MS            149                   2                       IL                ILLINOIS
                MS            149                   2                       IN                INDIANA
                MS            149                   2                       KS                KANSAS
                MS            149                   2                       KY                KENTUCKY
                MS            149                   2                       LA                LOUISIANA
                MS            149                   2                       MA                MASSACHUSETTS
                MS            149                   2                       MD                MARYLAND
                MS            149                   2                       ME                MAINE
                MS            149                   2                       MI                MICHIGAN
                MS            149                   2                       MN                MINNESOTA
                MS            149                   2                       MO                MISSOURI
                MS            149                   2                       MS                MISSISSIPPI
                MS            149                   2                       MT                MONTANA
                MS            149                   2                       NC                NORTH CAROLINA
                MS            149                   2                       ND                NORTH DAKOTA
                MS            149                   2                       NE                NEBRASKA
                MS            149                   2                       NH                NEW HAMPSHIRE
                MS            149                   2                       NJ                NEW JERSEY
                MS            149                   2                       NM                NEW MEXICO
                MS            149                   2                       NV                NEVADA
                MS            149                   2                       NY                NEW YORK
                MS            149                   2                       OH                OHIO
                MS            149                   2                       OK                OKLAHOMA
                MS            149                   2                       OR                OREGON
                MS            149                   2                       PA                PENNSYLVANIA
                MS            149                   2                       PR                PUERTO RICO
                MS            149                   2                       RI                RHODE ISLAND
                MS            149                   2                       SC                SOUTH CAROLINA
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MST8030                                          MODEL STATE INFORMATION SYSTEM
                                                 STANDARD PROCESSING SUBSYSTEM
DATE 05/11/77
                                                      CODE VALUE TABLE                                          PAGE     3

                            DATA ELEMENT
             FILE ID        CATALOGUE NO       DATA ELEMENT LENGTH       DATA ELEMENT VALUE            DATA ELEMENT DESCRIPTION

               MS               149                    2                        SD                    SOUTH DAKOTA
               MS               149                    2                        TN                    TENNESSEE
               MS               149                    2                        TT                    TRUST TERRITORIES
               MS               149                    2                        TX                    TEXAS
               MS               149                    2                        UT                    UTAH
               MS               149                    2                        VA                    VIRGINIA
               MS               149                    2                        VI                    VIRGIN ISLANDS
               MS               149                    2                        VT                    VERMONT
               MS               149                    2                        WA                    WASHINGTON
               MS               149                    2                        WI                    WISCONSIN
               MS               149                    2                        WV                    WEST VIRGINIA
               MS               149                    2                        WY                    WYOMING
               MS               149                    2                        01                    EPA REGION I - BOSTON
               MS               149                    2                        02                    EPA REGION II - NEW YORK
               MS               149                    2                        03                    EPA REGION III - PHILADELPHIA
               MS               149                    2                        04                    EPA REGION IV - ATLANTA
               MS               149                    2                        05                    EPA REGION V - CHICAGO
               MS               149                    2                        06                    EPA REGION VI - DALLAS
               MS               149                    2                        07                    EPA REGION VII - KANSAS CITY
               MS               149                    2                        08                    EPA REGION VIII - DENVER
               MS               149                    2                        09                    EPA REGION IX - SAN FRANCISCO
               MS               149                    2                        10                    EPA REGION X - SEATTLE
               MS               343                    2                        01                    SINGLE SAMPLE MCL
               MS               343                    2                        02                    AVERAGE MCL
               MS               343                    2                        03                    REGULAR SAMPLING
               MS               343                    2                        04                    CHECK (REPEAT) SAMPLING
               MS               343                    2                        05                    STATE NOTIFICATION
               MS               343                    2                        06                    PUBLIC NOTIFICATION
               MS               343                    2                        07                    TREATMENT TECHNIQUES
               MS               343                    2                        08                    V OR E COMPLIANCE SCHEDULE
               MS               343                    2                        09                    RECORD KEEPING
               MS               343                    2                        10                    OPERATIONS REPORT
               MS               454                    2                        01                    LETTER TO PWS FROM STATE WSP
               MS               454                    2                        04                    ADM.HEARING - PWS & STATE WSP
               MS               454                    2                        07                    OTHER STATE ADM.PROCEDURE
               MS               454                    2                        10                    INJUNCTION SOUGHT
               MS               454                    2                        13                    FINE LEVIED ON PWS
               MS               454                    2                        16                    OTHER CIVIL ACTION
               MS               454                    2                        19                    EXPLORE ALT. SOURCES OF WATER
               MS               454                    2                        22                    EXPLORE REGIONAL SYS. DEVELOP
               MS               454                    2                        25                    FINANCIAL AID OBTAINED
               MS               454                    2                        28                    TREATMENT SYSTEM DESIGNED
               MS               454                    2                        31                    TREATMENT SYSTEM APPROVED
               MS               454                    2                        34                    TREATMENT SYSTEM BUILT
               MS               454                    2                        37                    PERIODIC MONITORING REQ'D.
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                                        MODEL STATE INFORMATION SYSTEM
MSIS030                                 STANDARD PROCESSING SUBSYSTEM

DATE 05/11/77                                  CODE VALUE TABLE                                              PAGE     1

                        DATA ELEMENT
          FILE ID       CATALOGUE NO       DATA ELEMENT LENGTH       DATA ELEMENT VALUE          DATA ELEMENT DESCRIPTION

            OM              479                     1                        L                   LABORATORY OWNER
            OM              479                     1                        O                   OPERATOR
            OM              479                     1                        P                   WATER PURVEYOR
            OM              479                     1                        S                   SANITARY ENGINEER
            OM              479                     1                        W                   WATER SUPPLY OWNER
            OM              479                     1                        X                   OTHER
            OM              479                     1                        0                   OPERATOR
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                                        MODEL STATE INFORMATION SYSTEM
MSIS030                                 STANDARD PROCESSING SUBSYSTEM
DATE 05/11/77                                  CODE VALUE TABLE                                           PAGE    1

                    DATA ELEMENT
        FILE ID     CATALOGUE NO       DATA ELEMENT LENGTH     DATA ELEMENT VALUE          DATA ELEMENT DESCRIPTION
          PW            159                    3                     001                   ADAMS
          PW            159                    3                     003                   ALEXANDER
          PW            159                    3                     005                   BOND
          PW            159                    3                     007                   BOONE
          PW            159                    3                     009                   BROWN
          PW            159                    3                     011                   BUREAU
          PW            159                    3                     013                   CALHOUN
          PW            159                    3                     015                   CARROLL
          PW            159                    3                     017                   CASS
          PW            159                    3                     019                   CHAMPAIGN
          PW            159                    3                     021                   CHRISTIAN
          PW            159                    3                     023                   CLARK
          PW            159                    3                     025                   CLAY
          PW            159                    3                     027                   CLINTON
          PW            159                    3                     029                   COLES
          PW            159                    3                     031                   COOK
          PW            159                    3                     033                   CRAWFORD
          PW            159                    3                     035                   CUMBERLAND
          PW            159                    3                     037                   DE KALB
          PW            159                    3                     039                   DE WITT
          PW            159                    3                     041                   DOUGLAS
          PW            159                    3                     043                   DE PAGE
          PW            159                    3                     045                   EDGAR
          PW            159                    3                     047                   EDWARDS
          PW            159                    3                     049                   EFFINGHAM
          PW            159                    3                     051                   FAYETTE
          PW            159                    3                     053                   FORD
          PW            159                    3                     055                   FRANKLIN
          PW            159                    3                     057                   FULTON
          PW            159                    3                     059                   GALLATIN
          PW            159                    3                     061                   GREENE
          PW            159                    3                     063                   GRUNDY
          PW            159                    3                     065                   HAMILTON
          PW            159                    3                     067                   HANCOCK
          PW            159                    3                     069                   HARDIN
          PW            159                    3                     071                   HENDERSON
          PW            159                    3                     073                   HENRY
          PW            159                    3                     075                   IROQUOIS
          PW            159                    3                     077                   JACKSON
          PW            159                    3                     079                   JASPER
          PW            159                    3                     081                   JEFFERSON
          PW            159                    3                     083                   JERSEY
          PW            159                    3                     085                   JO DAVIESS
          PW            159                    3                     087                   JOHNSON
          PW            159                    3                     089                   KANE
          PW            159                    3                     091                   KANKAKEE
          PW            159                    3                     093                   KENDALL
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                                   MID . ST TE   OR  T    SY
MSI3030                            STANDARD PROCESSIN  S  SYSTE

DATE 05/11/77                           CODE VALUE TABLE                                          PAGE     2

                   DATA ELEMENT
         FILE ID   CATALOGUE NO     DATA ELEMENT LENGTH     DATA ELEMENT VALUE        DATA ELEMENT DESCRIPTION
           PH          159                  3                      095                 KNOX
           PH          159                  3                      097                 LAKE
           PH          159                  3                      099                 LA SALLE
           PH          159                  3                      101                 LAWRENCE
           PH          159                  3                      103                 LEE
           PH          159                  3                      105                 LIVINGSTON
           PH          159                  3                      107                 LOGAN
           PH          159                  3                      109                 MCDONOUGH
           PH          159                  3                      111                 MCHENRY
           PH          159                  3                      113                 MCLEAN
           PH          159                  3                      115                 MACON
           PH          159                  3                      117                 MACOUPIN
           PH          159                  3                      119                 MADISON
           PH          159                  3                      121                 MARION
           PH          159                  3                      123                 MARSHALL
           PH          159                  3                      125                 MASON
           PH          159                  3                      127                 MASSAC
           PH          159                  3                      129                 MENARD
           PH          159                  3                      131                 MERCER
           PH          159                  3                      133                 MONROE
           PH          159                  3                      135                 MONTGOMERY
           PH          159                  3                      137                 MORGAN
           PH          159                  3                      139                 MOULTRIE
           PH          159                  3                      141                 OGLE
           PH          159                  3                      143                 PEORIA
           PH          159                  3                      145                 PERRY
           PH          159                  3                      147                 PIATT
           PH          159                  3                      149                 PIKE
           PH          159                  3                      151                 POPE
           PH          159                  3                      153                 PULASKI
           PH          159                  3                      155                 PUTNAM
           PH          159                  3                      157                 RANDOLPH
           PH          159                  3                      159                 RICHLAND
           PH          159                  3                      161                 ROCK ISLAND
           PH          159                  3                      163                 ST CLAIR
           PH          159                  3                      165                 SALINE
           PH          159                  3                      167                 SANGAMON
           PH          159                  3                      169                 SCHUYLER
           PH          159                  3                      171                 SCOTT
           PH          159                  3                      173                 SHELBY
           PH          159                  3                      175                 STARK
           PH          159                  3                      177                 STEPHENSON
           PH          159                  3                      179                 TAZEWELL
           PH          159                  3                      181                 UNION
           PH          159                  3                      183                 VERMILLION
           PH          159                  3                      185                 WABASH
           PH          159                  3                      187                 WARREN
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MSI8030                                        MODEL STATE INFORMATION SYSTEM
                                               STANDARD PROCESSING SUBSYSTEM
DATE 05/11/77                                        CODE VALUE TABLE                                           PAGE    3

                     DATA ELEMENT
         FILE ID     CATALOGUE NO      DATA ELEMENT LENGTH      DATA ELEMENT VALUE           DATA ELEMENT DESCRIPTION

           PW            159                   3                      189                  WASHINGTON
           PW            159                   3                      191                  WAYNE
           PW            159                   3                      193                  WHITE
           PW            159                   3                      195                  WHITESIDE
           PW            159                   3                      197                  WILL
           PW            159                   3                      199                  WILLIAMSON
           PW            159                   3                      201                  WINNEBAGO
           PW            159                   3                      203                  WOODFORD
           PW            160                   3                      017                  CANADIAN INDIAN
           PW            160                   3                      018                  CAYUGA
           PW            160                   3                      019                  CAYUGA-SENECA
           PW            160                   3                      020                  CONFEDERATED TRIBES CHEHALIS
           PW            160                   3                      027                  CHICKASAW
           PW            160                   3                      032                  CHOCTAW
           PW            160                   3                      037                  COEUR D'ALENE
           PW            160                   3                      042                  CREE
           PW            160                   3                      043                  CREEK
           PW            160                   3                      044                  CROW
           PW            160                   3                      076                  MIAMI
           PW            160                   3                      078                  MISSOURI
           PW            160                   3                      079                  MISSOURI-OTOE
           PW            160                   3                      091                  OSAGE
           PW            160                   3                      093                  OTTAWA
           PW            160                   3                      097                  PAWNEE
           PW            160                   3                      103                  POTAWATOMIE
           PW            160                   3                      140                  SHAWNEE
           PW            160                   3                      142                  EASTERN SHAWNEE
           PW            160                   3                      171                  WINNEBAGO
           PW            196                   1                      A                    SYSTEM ABANDONED
           PW            196                   1                      D                    DUPLICATE PWS WITH ANOTHER ID
           PW            196                   1                      M                    SYSTEM MERGED/CONSOLIDATED
           PW            196                   1                      O                    OTHER
           PW            196                   1                      P                    SYSTEM PURGED FROM INVENTORY
           PW            196                   1                      R                    PWS REENTERED WITH NEW ID
           PW            196                   1                      S                    SYSTEM DISCONTINUED
           PW            196                   1                      9                    OTHER
           PW            200                   2                      01                   REGION 1  = ROCKFORD
           PW            200                   2                      02                   REGION 2  = AURORA
           PW            200                   2                      03                   REGION 3  = SPRINGFIELD
           PW            200                   2                      04                   REGION 4  = COLLINSVILLE
           PW            200                   2                      05                   REGION 5  = MARION
           PW            200                   2                      3A                   REGION 3A = CHAMPAIGN
           PW            201                   2                      01                   DISTRICT 1
           PW            201                   2                      02                   DISTRICT 2
           PW            201                   2                      03                   DISTRICT 3
           PW            201                   2                      04                   DISTRICT 4
           PW            201                   2                      05                   DISTRICT 5
```

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                                          MODEL STATE INFORMATION SYSTEM
MSI8030                                   STANDARD PROCESSING SUBSYSTEM
DATE 05/11/77                                    CODE VALUE TABLE                                      PAGE    4

                         DATA ELEMENT
          FILE ID        CATALOGUE NO      DATA ELEMENT LENGTH      DATA ELEMENT VALUE          DATA ELEMENT DESCRIPTION

            PW              201                    2                      06                  DISTRICT 6
            PW              237                    1                      A                   AUTHORITY/COMMISION/DISTRICT
            PW              237                    1                      C                   CITY
            PW              237                    1                      F                   FEDERAL
            PW              237                    1                      I                   INVESTOR
            PW              237                    1                      M                   MUNICIPALITY
            PW              237                    1                      N                   COUNTY
            PW              237                    1                      O                   OTHER
            PW              237                    1                      S                   STATE
            PW              237                    1                      U                   UNKNOWN
            PW              237                    1                      0                   OTHER
            PW              237                    1                      1                   INVESTOR
            PW              246                    1                      E                   EMERGENCY SOURCE
            PW              246                    1                      I                   INTERIM SOURCE
            PW              246                    1                      O                   OTHER
            PW              246                    1                      P                   PERMANENT SOURCE
            PW              246                    1                      R                   RESERVE SOURCE
            PW              246                    1                      S                   SEASONAL SOURCE
            PW              246                    1                      0                   OTHER
            PW              246                    1                      1                   INTERIM SOURCE
            PW              247                    4                      0515                SALT RIVER
            PW              247                    4                      0516                GREEN RIVER
            PW              247                    4                      0517                WABASH RIVER
            PW              247                    4                      0518                EAST FORK WHITE RIVER
            PW              247                    4                      0519                WEST FORK WHITE RIVER
            PW              247                    4                      0520                CUMBERLAND RIVER
            PW              247                    4                      0521                OHIO RIVER MAIN STEM
            PW              247                    4                      0803                MENOMINEE
            PW              247                    4                      0804                CEDAR
            PW              247                    4                      0805                FORD
            PW              247                    4                      0806                ESCANABA
            PW              247                    4                      0807                RAPID
            PW              247                    4                      0808                WHITEFISH
            PW              247                    4                      0809                STURGEON
            PW              247                    4                      0810                FISHDAM
            PW              247                    4                      0811                MANISTIQUE
            PW              247                    4                      0816                BOARDMAN
            PW              247                    4                      0818                BETSIE
            PW              247                    4                      0823                WHITE
            PW              247                    4                      0828                GRAND
            PW              248                    3                      001                 0394531 0401228
            PW              248                    3                      003                 0370009 0372033
            PW              248                    3                      005                 0384401 0390156
            PW              248                    3                      007                 0420925 0433011
            PW              248                    3                      009                 0395005 0400626
            PW              248                    3                      011                 0410852 0423527
            PW              248                    3                      013                 0385133 0392412
```

MODEL STATE INFORMATION SYSTEM
STANDARD PROCESSING SUBSYSTEM

CODE VALUE TABLE

FILE ID	DATA ELEMENT CATALOGUE NO	DATA ELEMENT LENGTH	DATA ELEMENT VALUE	DATA ELEMENT DESCRIPTION
PW	248	3	015	0415556 0421219
PW	248	3	017	0395204 0400725
PW	248	3	019	0395241 0402331
PW	248	3	021	0392100 0404943
PW	248	3	023	0391009 0392900
PW	248	3	025	0383943 0395453
PW	248	3	027	0382447 0394408
PW	248	3	029	0392226 0404056
PW	248	3	031	0412753 0420936
PW	248	3	033	0385107 0391039
PW	248	3	035	0391021 0392246
PW	248	3	037	0413748 0420935
PW	248	3	039	0400301 0401653
PW	248	3	041	0393848 0405246
PW	248	3	043	0413959 0425928
PW	249	3	001	0905435 0923014
PW	249	3	003	0891034 0903039
PW	249	3	005	0891539 0903814
PW	249	3	007	0884205 0895625
PW	249	3	009	0903030 0915443
PW	249	3	011	0890952 0905104
PW	249	3	013	0902704 0915610
PW	249	3	015	0894107 0901940
PW	249	3	017	0895919 0913507
PW	249	3	019	0875545 0882842
PW	249	3	021	0890143 0903229
PW	249	3	023	0873214 0880111
PW	249	3	025	0881503 0894210
PW	249	3	027	0890837 0904227
PW	249	3	029	0875809 0882836
PW	249	3	031	0873126 0881640
PW	249	3	033	0873121 0885721
PW	249	3	035	0880111 0882841
PW	249	3	037	0883451 0895640
PW	249	3	039	0883453 0890829
PW	249	3	041	0875625 0882836
PW	249	3	043	0875524 0881640

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                                              MODEL STATE INFORMATION SYSTEM
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                            DATA ELEMENT
             FILE ID        CATALOGUE NO       DATA ELEMENT LENGTH       DATA ELEMENT VALUE         DATA ELEMENT DESCRIPTION

               RG               044                    1                        C                  COLOR
               RG               044                    1                        D                  TDS
               RG               044                    1                        F                  FOAMING
               RG               044                    1                        H                  HEALTH
               RG               044                    1                        I                  IRON
               RG               044                    1                        L                  CHLORIDE
               RG               044                    1                        M                  MANGANESE
               RG               044                    1                        O                  ODOR
               RG               044                    1                        P                  PH
               RG               044                    1                        S                  SULFATE
               RG               044                    1                        T                  TASTE
               RG               044                    1                        U                  COPPER
               RG               044                    1                        V                  CORROSIVITY
               RG               044                    1                        Y                  HYDROGEN SULFIDE
               RG               044                    1                        Z                  ZINC
               RG               044                    1                        0                  ODOR
               RG               044                    1                        1                  IRON
               RG               044                    1                        2                  ZINC
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CODE VALUE TABLE

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FILE ID	DATA ELEMENT CATALOGUE NO	DATA ELEMENT LENGTH	DATA ELEMENT VALUE	DATA ELEMENT DESCRIPTION
VE	461	1	A	INTEREST IN V OR E EXPRESSED
VE	461	1	C	APPLICATION FOR V OR E REC'D
VE	461	1	E	STATE PROPOSES TO DENY V OR E
VE	461	1	G	STATE PROPOSES TO GRANT V OR E
VE	461	1	I	HEARING ON PROPOSAL SCHEDULED
VE	461	1	K	HEARING ON PROPOSAL HELD
VE	461	1	M	COMPLIANCE SCHEDULE PRESCRIBED
VE	461	1	O	HEARING ON SCHEDULE OFFERED
VE	461	1	Q	HEARING ON SCHEDULE HELD
VE	461	1	R	ADDITIONAL INFORMATION DESIRED
VE	461	1	S	V OR E GRANTED'
VE	461	1	T	V OR E DENIED
VE	461	1	U	STATE SETS MONITORING REQ'M
VE	461	1	V	EPA SETS MONITORING REQ'M
VE	461	1	W	NOTIFICATION GIVEN TO PUBLIC
VE	461	1	X	OTHER
VE	461	1	Y	NOTIFICATION GIVEN TO EPA
VE	461	1	Z	PENDING DELETION
VE	461	1	0	HEARING ON SCHEDULE OFFERED
VE	461	1	1	HEARING ON PROPOSAL SCHEDULED
VE	465	3	020	AERATION
VE	465	3	040	PRECHLORINATION
VE	465	3	060	COAGULATION
VE	465	3	080	SEDIMENTATION
VE	465	3	100	FILTRATION
VE	465	3	120	CORROSION CONTROL
VE	465	3	140	SOFTENING
VE	465	3	160	TASTE AND ODOR CONTROL
VE	465	3	180	IRON REMOVAL
VE	465	3	200	AMMONIATION
VE	465	3	220	FLORIDE ADJUSTMENT
VE	465	3	240	DISINFECTION
VE	466	3	001	LIME COAGULATION
VE	466	3	003	PRECIPITATION
VE	466	3	005	SEQUESTRATION
VE	466	3	007	STRAINING
VE	466	3	009	SCREENING
VE	466	3	011	DESALINATION
VE	466	3	013	REVERSE OSMOSIS
VE	466	3	015	MANGANESE REMOVAL
VE	466	3	017	ACTIVATED CARBON (GRANULAR)
VE	466	3	019	ACTIVATED CARBON (POWDERED)
VE	466	3	021	FLUORIDATION
VE	466	3	023	FLUORIDE REMOVAL
VE	466	3	025	U.V. DISINFECTION
VE	466	3	027	OZONE DISINFECTION
VE	466	3	029	IODINE DISINFECTION

CODE VALUE TABLE

FILE ID	DATA ELEMENT CATALOGUE NO	DATA ELEMENT LENGTH	DATA ELEMENT VALUE	DATA ELEMENT DESCRIPTION
VE	466	3	031	CHLORINE DISINFECTION
VE	466	3	033	CHLORINE DIOXIDE
VE	466	3	035	BREAKPOINT CHLORINATION
VE	466	3	037	POST-CHLORINATION
VE	466	3	039	SUPER-CHLORINATION
VE	466	3	041	CARBON ABSORPTION
VE	466	3	043	ELECTRODIALYSIS
VE	466	3	045	DISTILLATION
VE	466	3	047	RE-CARBONATION
VE	466	3	049	ION EXCHANGE
VE	466	3	051	FLOCCULATION
VE	466	3	053	PH ADJUSTMENT
VE	466	3	055	CHEMICAL OXIDATION
VE	466	3	057	ABSORBING AGENTS
VE	466	3	998	OTHER
VE	466	3	999	NO TREATMENT REQUIRED
VE	469	2	01	CANNOT COMPLY AFTER TREATMENT
VE	469	2	03	CANNOT AFFORD FACILITY CONST.
VE	469	2	05	FUNDS PENDING
VE	469	2	07	FACILITY CONST. PENDING
VE	469	2	09	UNABLE TO AFFORD TREATMENT
VE	469	2	11	TREATMENT UNNECESSARY
VE	469	2	13	TREATMENT IMPRACTICAL
VE	469	2	99	OTHER
VE	476	1	2	DELETE MILESTONE
VE	476	1	1	FACILITY CONSTRUCTION NOT COMP
VE	476	1	3	NEW WATER SOURCE NOT FOUND

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                                      MODEL STATE INFORMATION SYSTEM
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                         RECORD INFORMATION                               NAME INFORMATION
                                START POSITION          FIELD LENGTH
FILE ID   CATALOGUE NO      TRANSACTION / FILE     TRANSACTION / FILE     MNEMONIC NAME           HISTORY CODE

  EA          430               01      0001           05      05          EA-CASE-ID                 Y
  EA          431               09      0006           12      12          EA-CASE-RE                 Y
  EA          432               21      0018           30      30          EA-CASENAM                 Y
  EA          433               51      0048           06      05          EA-ACT-DAT                 Y
  EA          434               08      0053           01      01          EA-CLOSE                   Y
  EA          435               08      0054           01      01          EA-PLNTYPE                 Y
  EA          436               09      0055           30      30          EA-PLNNAME                 Y
  EA          437               39      0085           01      01          EA-DEFTYPE                 Y
  EA          438               40      0086           30      30          EA-DEFNAME                 Y
  EA          439               08      0116           07      07          EA-ORDERNO                 Y
  EA          440               15      0123           06      05          EA-ORDATE                  Y
  EA          441               21      0128           07      07          EA-PERNO                   Y
  EA          442               28      0135           06      05          EA-PERDATE                 Y
  EA          443               58      0140           07      07          EA-PWS-ID                  Y
  EA          444               65      0147           02      02          EA-STATE                   Y
  EA          445               10      ****           06      05          EA-VIL-DAT                 Y
  EA          446               16      ****           04      04          EA-CON-ID                  Y
  EA          447               08      ****           02      02          EA-VIOL-TP                 Y
  EA          448               08      ****           30      30          EA-ABSTRAC                 Y
  EA          449               57      0559           01      01          EA-LEGALST                 Y
  EA          450               00      0560           00      05          EA-LST-UP                  Y
  EA          451               00      0565           00      02          EA-HISTONE                 Y
  EA          452               10      ****           06      05          EA-TAR-DT                  Y
  EA          453               16      ****           06      05          EA-ATT-DAT                 Y
  EA          454               08      ****           02      02          EA-MIL-CND                 Y
  EA          904               06      ****           02      02          EA-TRAN-CD                 N
  EA          907               08      ****           01      01          EA-CRDT-CD                 N
  EA          911               22      ****           01      01          EA-DEL-CD                  N
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                                        MODEL STATE INFORMATION SYSTEM
MSI8030                                 STANDARD PROCESSING SUBSYSTEM

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                           RECORD INFORMATION                                     NAME INFORMATION
                                  START POSITION           FIELD LENGTH
       FILE ID   CATALOGUE NO   TRANSACTION / FILE      TRANSACTION / FILE         MNEMONIC NAME            HISTORY CODE

          LB           319           01        0001           05        05           LB-ID                        N
          LB           320           06        0006           01        01           LB-CONTGRP                   N
          LB           321           07        0007           01        01           LB-OW-TYPE                   N
          LB           322           08        0008           30        30           LB-NAME                      N
          LB           323           38        0038           06        05           LB-EXP-DT                    N
          LB           324           00        0043           00        06           LB-REL-REC                   N
          LB           325           00        0049           00        02           LB-METHCNT                   N
          LB           820           07        ****           72        03           LB-METHOD                    N
          LB           914           79        ****           02        02           TRAN-CODE                    N
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                                           MODEL STATE INFORMATION SYSTEM
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                              RECORD INFORMATION                                  NAME INFORMATION
                                START POSITION          FIELD LENGTH
        FILE ID   C-TALOGUE NO  TRANSACTION / FILE   TRANSACTION / FILE        MNEMONIC NAME                HISTORY CODE

          OM          478          01      0001          05      05            OM-ADS-ID                        Y
          OM          479          08      0006          01      01            OM-ADS-TYP                       Y
          UM          480          09      0007          30      30            OM-ADS-NAM                       Y
          OM          481          39      0037          30      30            OM-ADS-STR                       Y
          OM          482          08      0067          30      30            OM-ADS-CTY                       Y
          OM          483          38      0097          02      02            OM-ADS-STA                       Y
          OM          484          40      0099          05      05            OM-ADS-ZIP                       Y
          OM          485          45      0104          03      03            OM-AREA-CD                       Y
          OM          486          48      0107          07      07            OM-PH-NUM                        Y
          OM          487          00      0114          00      05            OM-LST-UPD                       Y
          OM          488          08      0119          07      07            OM-CER-NUM                       Y
          OM          489          15      0126          07      07            OM-PNB-ID                        Y
          OM          490          22      ****          06      01            OM-OP-CLS                        Y
          OM          491          26      0139          06      05            OM-RNL-DT                        Y
          OM          903          06      ****          02      02            OM-TRAN-CD                       N
          OM          908          08      ****          01      01            OM-CRDT-CD                       N
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                                        MODEL STATE INFORMATION SYSTEM
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                        RECORD INFORMATION                                    NAME INFORMATION
                                 START POSITION           FIELD LENGTH
          FILE ID   CATALOGUE NO   TRANSACTION / FILE   TRANSACTION / FILE     MNEMONIC NAME            HISTORY CODE

            PH          310            00      0001         00      07         PH-PNS-ID                   Y
            PH          311            00      0008         00      03         PH-CAT-NO                   Y
            PH          312            00      0011         00      05         PH-CUR-UP                   Y
            PH          313            00      0016         00      30         PH-PH-NAME                  Y
            PH          314            00      0046         00      02         PH-S-REGN                   Y
            PH          315            00      0048         00      02         PH-S-DIST                   Y
            PH          316            00      0050         00      05         PH-LST-UP                   Y
            PH          317            00      0055         00      30         PH-OLD-VAL                  Y
            PH          318            00      0085         00      30         PH-NEW-VAL                  Y
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MSI8030                                         MODEL STATE INFORMATION SYSTEM
                                                STANDARD PROCESSING SUBSYSTEM
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                                    RECORD INFORMATION                                     NAME INFORMATION
                                       START POSITION          FIELD LENGTH
          FILE ID    CATALOGUE NO   TRANSACTION / FILE     TRANSACTION / FILE          MNEMONIC NAME                  HISTORY CODE

            PS           399            01       0001          07        07             PS-PWS-ID                          N
            PS           400            10       0010          04        04             PS-CONTD                           N
            PS           401            28       0014          03        03             PS-SAMPLID                         N
            PS           402            37       0017          01        01             PS-SAMPLTP                         N
            PS           403            31       0018          06        05             PS-SAMPLDT                         N
            PS           404            38       0023          04        04             PS-SAMPLTM                         N
            PS           405            17       0027          10        10             PS-SAMPLKY                         N
            PS           406            00       0037          01        01             PS-RFCDTYP                         N
            PS           407            14       0049          03        03             PS-AN-METH                         N
            PS           408            42       0052          05        05             PS-LAB-ID                          N
            PS           409            17       0058          04        05             PS-D-ANRSL                         N
            PS           410            21       0063          01        01             PS-D-ANDEC                         N
            PS           411            22       0064          06        05             PS-D-ANDTE                         N
            PS           412            23       0069          04        04             PS-S-HIRSL                         N
            PS           413            27       0073          01        01             PS-S-HIDEC                         N
            PS           414            28       0074          04        04             PS-S-LORSL                         N
            PS           415            32       0078          01        01             PS-S-LODEC                         N
            PS           416            33       0079          04        04             PS-S-MNRSL                         N
            PS           417            37       0083          01        01             PS-S-MNDEC                         N
            PS           418            17       0084          03        03             PS-REQ-SPL                         N
            PS           419            20       0087          03        03             PS-ACT-SPL                         N
            PS           420            49       0090          06        05             PS-PRD-STR                         N
            PS           421            55       0095          06        05             PS-PRD-END                         N
            PS           422            73       0118          01        01             PS-CHK-FED                         N
            PS           423            74       0119          01        01             PS-CHK-STA                         N
            PS           424            75       0120          03        03             PS-CHK-NUM                         N
            PS           425            38       0129          04        04             PS-FED-VIO                         N
            PS           426            42       0133          04        04             PS-STA-VIO                         N
            PS           427            46       0137          03        03             PS-VIO-DUR                         N
            PS           428            78       0140          01        01             PS-NOTIPUB                         N
            PS           429            79       0141          01        01             PS-NOTISTA                         N
            PS           817            08       0008          02        02             PS-TRAN-CD                         N
            PS           818            00       0142          00        01             PS-ERR-IND                         N
            PS           819            00       0057          00        01             PS-LB-OWN                          N
            PS           900            61       0017          01        01             PS-SMPLTP                          N
            PS           901            62       0018          06        05             PS-SMPLDT                          N
            PS           902            68       0052          05        05             PS-LB-ID                           N
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M EL TAT NF [illegible]
STANDARD PROCESSING SUBSYS

DATA ELEMENT TABLE

	RECORD INFORMATION	START POSITION		FIELD LENGTH		NAME INFORMATION	
FILE ID	CATALOGUE NO	TRANSACTION	FILE	TRANSACTION	FILE	MNEMONIC NAME	HISTORY CODE
PW	145	01	0001	07	07	PW-ID	N
PW	146	10	0008	30	30	PW-OWNA	Y
PW	147	40	0038	30	30	PW-PL-STRT	Y
PW	148	10	0068	30	30	PW-PL-CITY	Y
PW	149	40	0098	02	02	PW-PL-STAT	Y
PW	150	42	0100	05	05	PW-PL-ZIP	Y
PW	151	10	0105	30	30	PW-MA-NAME	Y
PW	152	40	0135	30	30	PW-MA-STRT	Y
PW	153	10	0165	30	30	PW-MA-CITY	Y
PW	154	40	0195	02	02	PW-MA-STAT	Y
PW	155	42	0197	05	05	PW-MA-ZIP	Y
PW	156	47	0202	03	03	PW-MA-ARCU	Y
PW	157	50	0205	07	07	PW-MA-PNUM	Y
PW	158	10	0212	15	15	PW-PL-ACTY	N
PW	159	25	0227	03	03	PW-PL-ACNT	N
PW	160	28	0230	03	03	PW-PL-REBR	N
PW	161	31	0233	01	01	PW-PL-REBI	N
PW	162	32	0234	01	01	PW-PL-COMP	N
PW	163	33	0235	01	01	PW-PL-RECR	N
PW	164	34	0236	01	01	PW-PL-MOHO	N
PW	165	35	0237	01	01	PW-PL-INST	N
PW	166	36	0238	01	01	PW-PL-SCHL	N
PW	167	37	0239	01	01	PW-PL-HOTL	N
PW	168	38	0240	01	01	PW-PL-REST	N
PW	169	39	0241	01	01	PW-PL-SBTA	N
PW	170	40	0242	01	01	PW-PL-CAMP	N
PW	171	41	0243	01	01	PW-PL-PIC	N
PW	172	42	0244	01	01	PW-PL-LODG	N
PW	173	43	0245	01	01	PW-PL-MARI	N
PW	174	44	0246	01	01	PW-PL-SKI	N
PW	175	45	0247	01	01	PW-PL-BATH	N
PW	176	46	0248	01	01	PW-PL-VCTR	N
PW	177	47	0249	01	01	PW-PL-HWY	N
PW	178	48	0250	01	01	PW-PL-AIR	N
PW	179	49	0251	01	01	PW-PL-OTHR	N
PW	180	10	0252	07	07	PW-PL-CNUM	Y
PW	181	17	0259	01	01	PW-PL-CARR	Y
PW	182	18	0260	01	01	PW-PL-TYPE	N
PW	183	19	0261	09	09	PW-PL-POPL	Y
PW	184	28	0270	07	07	PW-PL-SNUM	Y
PW	185	35	0277	07	07	PW-PL-MNUM	Y
PW	186	10	0284	10	10	PW-PL-AVPR	Y
PW	187	20	0294	10	10	PW-PL-DECA	N
PW	188	30	0304	10	10	PW-PL-EMER	Y
PW	189	40	0314	10	10	PW-PL-STCA	Y

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                                      MODEL STATE INFORMATION SYSTEM
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DATE 05/11/77                              DATA ELEMENT TABLE                                      PAGE    2

                     RECORD INFORMATION                                      NAME INFORMATION
                                START POSITION          FIELD LENGTH
   FILE ID    CATALOGUE NO   TRANSACTION / FILE     TRANSACTION / FILE      MNEMONIC NAME          HISTORY CODE

     PW           190            50       0324         10        10        PW-PL-MAXP                  Y
     PW           191            10       0334         04        04        PW-PL-REGN                  Y
     PW           192            14       0338         06        05        PW-PL-SURV                  Y
     PW           193            20       0343         02        02        PW-PL-CYCL                  N
     PW           194            22       0345         01        01        PW-PL-ACTV                  N
     PW           195            23       0346         06        05        PW-PL-DDAT                  N
     PW           196            29       0351         01        01        PW-PL-DREA                  N
     PW           197            30       0352         12        12        PW-PL-MANU                  N
     PW           198            10       0364         02        02        PW-S-CODE                   Y
     PW           199            12       0366         01        01        PW-S-REGE                   N
     PW           200            13       0367         02        02        PW-S-REGN                   N
     PW           201            15       0369         02        02        PW-S-DIST                   N
     PW           202            17       0371         01        01        PW-S-BFLG                   Y
     PW           203            18       0372         01        01        PW-S-MONT                   N
     PW           204            19       0373         03        03        PW-S-NSAM                   N
     PW           205            22       0376         04        04        PW-S-SAGN                   N
     PW           206            26       0380         04        04        PW-S-SEND                   N
     PW           207            30       0384         01        01        PW-S-MDCK                   N
     PW           208            31       0385         03        03        PW-S-NSPFO                  N
     PW           209            34       0388         01        01        PW-S-HCKS                   N
     PW           210            35       0389         02        02        PW-S-CLOR                   N
     PW           211            37       0391         01        01        PW-S-TFLG                   Y
     PW           212            38       0392         02        02        PW-S-TBUN                   N
     PW           213            11       ****         04        04        PW-S-CONID                  Y
     PW           214            15       ****         03        03        PW-S-SPFO                   Y
     PW           215            10       0422         04        04        PW-S-ORBGN                  N
     PW           216            14       0426         04        04        PW-S-OREND                  N
     PW           217            19       0430         03        03        PW-S-ATEM                   N
     PW           218            22       0433         04        04        PW-S-NITR                   N
     PW           219            26       0437         01        01        PW-S-RFLG                   Y
     PW           220            27       0438         01        01        PW-S-RMON                   N
     PW           221            28       0439         02        02        PW-S-BETA                   N
     PW           222            30       0441         01        01        PW-S-NUCL                   N
     PW           223            31       0442         01        01        PW-S-FATYI                  N
     PW           224            12       ****         04        04        PW-S-FACON                  N
     PW           225            16       ****         02        02        PW-S-CFREQ                  N
     PW           226            10       0504         02        02        PW-S-GALP                   N
     PW           227            12       0506         02        02        PW-S-RADM                   N
     PW           228            14       0508         01        01        PW-S-NUMSP                  N
     PW           229            18       0509         01        01        PW-S-GMATR                  N
     PW           230            15       0510         01        01        PW-S-RREQ                   N
     PW           231            16       0511         04        04        PW-S-LAST                   Y
     PW           232            20       0515         01        01        PW-S-FNGM                   N
     PW           233            00       0516         00        17        PW-S-RESV                   N
     PW           234            00       0616         00        05        PW-LBT-UP                   N
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                                   MODEL STATE INFORMATION SYSTEM
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                         RECORD INFORMATION                                NAME INFORMATION
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        FILE ID   CATALOGUE NO   TRANSACTION / FILE    TRANSACTION / FILE     MNEMONIC NAME          HISTORY CODE

          PW          235           11       ****          05        05        PW-LA-ID                   N
          PW          236           16       ****          01        01        PW-LA-CFLG                 Y
          PW          237           47       0651          01        01        PW-OH-TYPE                 Y
          PW          238           11       ****          08        08        PW-VE-CTAM                 N
          PW          239           15       ****          05        05        PW-VE-MCL                  N
          PW          240           20       ****          01        01        PW-VE-DEC                  N
          PW          241           21       ****          03        03        PW-VE-AMF                  N
          PW          242           00       0705          00        02        PW-PL-SONM                 N
          PW          243           12       ****          15        15        PW-PL-SONA                 Y
          PW          244           27       ****          01        01        PW-PL-SOCO                 Y
          PW          245           28       ****          02        02        PW-PL-WELL                 Y
          PW          246           30       ****          01        01        PW-PL-AVAL                 Y
          PW          247           31       ****          04        04        PW-PL-BASN                 Y
          PW          248           35       ****          07        07        PW-PL-LATI                 Y
          PW          249           42       ****          07        07        PW-PL-LONG                 Y
          PW          250           49       ****          07        07        PW-PL-BLID                 Y
          PW          251           56       ****          01        01        PW-PL-AERA                 Y
          PW          252           57       ****          01        01        PW-PL-PREC                 Y
          PW          253           58       ****          01        01        PW-PL-CUAG                 Y
          PW          254           59       ****          01        01        PW-PL-SEDI                 Y
          PW          255           60       ****          01        01        PW-PL-FILT                 Y
          PW          256           61       ****          01        01        PW-PL-CORR                 Y
          PW          257           62       ****          01        01        PW-PL-SOFT                 Y
          PW          258           63       ****          01        01        PW-PL-TABT                 Y
          PW          259           64       ****          01        01        PW-PL-IRON                 Y
          PW          260           65       ****          01        01        PW-PL-AMMO                 Y
          PW          261           66       ****          01        01        PW-PL-FLOR                 Y
          PW          262           67       ****          01        01        PW-PL-DISI                 Y
          PW          263           68       ****          01        01        PW-PL-OTHE                 Y
          PW          264           00       ****          00        03        PW-PL-RESE                 Y
          PW          701           42       0704          01        01        PW-PL-COIN                 N
          PW          702           32       0443          01        01        PW-S-FATY2                 N
          PW          906           08       ****          02        02        PW-TRAN-CD                 N
          PW          910           10       ****          01        01        PW-CRDT-CD                 N
          PW          912           10       ****          01        01        PW-OCCUR1                  N
          PW          913           10       ****          02        02        PW-OCCUR2                  N
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                              RECORD INFORMATION                                 NAME INFORMATION
                                   START POSITION          FIELD LENGTH
        FILE ID   CATALOGUE NO   TRANSACTION / FILE     TRANSACTION / FILE        MNEMONIC NAME             HISTORY CODE

          RG          001             01      0001         04      04             RG-CONID                       N
          RG          002             05      0005         02      02             RG-A-RGLVL                     N
          RG          003             07      0007         11      15             RG-A-CONAM                     N
          RG          004             18      0022         06      05             RG-A-EFFDT                     N
          RG          005             24      0027         03      03             RG-A-M-GRA                     H
          RG          006             27      0030         03      03             RG-A-M-CHR                     N
          RG          007             30      0033         03      03             RG-A-GAURB                     N
          RG          008             33      0036         03      03             RG-A-GAIRB                     N
          RG          009             36      0039         03      03             RG-A-RGFRB                     N
          RG          010             39      0042         03      03             RG-A-RGANM                     N
          RG          011             42      0045         01      01             RG-A-NUMBP                     N
          RG          012             43      0046         01      01             RG-A-MINFP                     N
          RG          013             44      0047         02      02             RG-A-INIPU                     N
          RG          014             46      0049         02      02             RG-A-FRACT                     N
          RG          015             48      0051         02      02             RG-A-MINVF                     N
          RG          016             50      0053         01      01             RG-A-ACHBP                     N
          RG          017             51      0054         01      01             RG-A-CNCOB                     N
          RG          019             05      0005         02      02             RG-B-RGLVL                     N
          RG          020             07      0007         10      15             RG-B-CONAM                     N
          RG          021             17      0022         06      05             RG-B-EFFDT                     N
          RG          022             23      0027         02      02             RG-B-ANMCL                     N
          RG          023             25      0029         05      05             RG-B-TRIBC                     N
          RG          024             30      0034         03      03             RG-B-BTRBC                     N
          RG          025             33      0037         03      03             RG-B-MAENN                     N
          RG          026             36      0040         03      03             RG-B-MAECN                     N
          RG          027             39      0043         03      03             RG-B-SACIC                     N
          RG          028             42      0046         01      01             RG-B-CNCOB                     N
          RG          029             43      0047         01      01             RG-B-MONQD                     N
          RG          030             44      0048         01      01             RG-B-AVCOM                     N
          RG          031             45      0049         06      06             RG-B-MNPOP                     N
          RG          032             51      0055         01      01             RG-B-NNMBP                     N
          RG          033             52      0056         01      01             RG-B-NNMFQ                     N
          RG          034             53      0057         02      02             RG-B-NVMFQ                     N
          RG          035             55      0059         02      02             RG-B-CNIOS                     N
          RG          036             57      0061         02      02             RG-B-CNSTS                     N
          RG          037             59      0063         02      02             RG-B-CTOMF                     N
          RG          038             61      0065         02      02             RG-B-CSTMF                     N
          RG          039             63      0067         02      02             RG-B-CVMFQ                     N
          RG          040             65      0069         02      02             RG-B-CTUBP                     N
          RG          042             05      0005         02      02             RG-C-RGLVL                     N
          RG          043             07      0007         11      15             RG-C-CONAM                     N
          RG          044             18      0022         01      01             RG-C-RSNCO                     N
          RG          045             19      0023         06      06             RG-C-MCLUM                     N
          RG          046             25      0029         06      06             RG-C-MCL                       N
          RG          047             31      0035         01      01             RG-C-MCLDC                     N
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MSIS030                                  MODEL STATE INFORMATION SYSTEM
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                          RECORD INFORMATION                                   NAME INFORMATION
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     FILE ID   CATALOGUE NO   TRANSACTION / FILE   TRANSACTION / FILE          MNEMONIC NAME          HISTORY CODE

       RG          048              32      0036         05      05            RG-C-MCLOW                  N
       RG          049              37      0041         01      01            RG-C-MCLOD                  N
       RG          050              38      0042         05      05            RG-C-MCLHI                  N
       RG          051              43      0047         01      01            RG-C-MCLHD                  N
       RG          052              44      0048         01      01            RG-C-CKSAM                  N
       RG          053              45      0049         01      01            RG-C-SEACD                  N
       RG          054              46      0050         01      01            RG-C-SPECD                  N
       RG          055              47      0051         02      02            RG-C-MINTM                  N
       RG          056              49      0053         02      02            RG-C-CHKPD                  N
       RG          057              51      0055         06      05            RG-C-CFFDT                  N
       RG          058              57      0060         01      01            RG-C-CGRYR                  N
       RG          059              58      0061         04      04            RG-C-CGSPF                  N
       RG          060              62      0065         04      04            RG-C-CGVFQ                  N
       RG          061              66      0069         02      02            RG-C-CGMNG                  N
       RG          062              68      0071         01      01            RG-C-CSRYR                  N
       RG          063              69      0072         04      04            RG-C-CSSPF                  N
       RG          064              73      0076         04      04            RG-C-CSVFQ                  N
       RG          065              77      0080         02      02            RG-C-CSMNG                  N
       RG          066              51      0082         06      05            RG-C-NEFDT                  N
       RG          067              57      0087         01      01            RG-C-NGRYR                  N
       RG          068              58      0088         04      04            RG-C-NGSPF                  N
       RG          069              62      0092         04      04            RG-C-NGVFQ                  N
       RG          070              66      0096         02      02            RG-C-NGMNG                  N
       RG          071              68      0098         01      01            RG-C-NSRYR                  N
       RG          072              69      0099         04      04            RG-C-NSSPF                  N
       RG          073              73      0103         04      04            RG-C-NSVFQ                  N
       RG          074              77      0107         02      02            RG-C-NSMNG                  N
       RG          076              05      0005         02      02            RG-E-RGLVL                  N
       RG          077              07      0007         01      01            RG-E-TALID                  N
       RG          078              08      0008         06      05            RG-E-EFFDT                  N
       RG          079              14      0013         15      15            RG-E-CONAM                  N
       RG          080              29      0028         06      06            RG-E-ANCON                  N
       RG          081              35      0034         04      04            RG-E-DETLM                  N
       RG          082              39      0038         05      01            RG-E-NPPCD                  N
       RG          084              05      0005         02      02            RG-F-RGLVL                  N
       RG          085              07      0007         01      01            RG-F-TALID                  N
       RG          086              08      0008         03      03            RG-F-TRFLO                  N
       RG          087              11      0011         03      03            RG-F-TRFHI                  N
       RG          088              14      0014         03      03            RG-F-TRCLO                  N
       RG          089              17      0017         03      03            RG-F-TRCHI                  N
       RG          090              20      0020         06      06            RG-F-TRMCL                  N
       RG          091              26      0026         03      03            RG-F-RRFLO                  N
       RG          092              29      0029         03      03            RG-F-RRFHI                  N
       RG          093              32      0032         03      03            RG-F-RRCLO                  N
       RG          094              35      0035         03      03            RG-F-RRCHI                  N
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                                          MODEL STATE INFORMATION SYSTEM
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                               RECORD INFORMATION                                  NAME INFORMATION
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          FILE ID   CATALOGUE NO   TRANSACTION / FILE    TRANSACTION / FILE        MNEMONIC NAME               HISTORY CODE

            RG          096            05       0005         02       02           RG-M-RQLVL                       N
            RG          097            07       0007         08       15           RG-M-CONAM                       N
            RG          098            15       0022         06       05           RG-M-EFFDT                       N
            RG          099            21       0027         02       02           RG-M-MF-SM                       N
            RG          100            23       0029         02       02           RG-M-MF-MT                       N
            RG          101            25       0031         02       02           RG-M-MF-PS                       N
            RG          102            27       0033         02       02           RG-M-MF-MR                       N
            RG          103            29       0035         02       02           RG-M-MF-MC                       N
            RG          104            31       0037         02       02           RG-M-FT-SM                       N
            RG          105            33       0039         02       02           RG-M-FT-MT                       N
            RG          106            35       0041         02       02           RG-M-FT-PS                       N
            RG          107            37       0043         02       02           RG-M-FT-MR                       N
            RG          108            39       0045         02       02           RG-M-FT-MC                       N
            RG          109            41       0047         02       02           RG-M-FH-SM                       N
            RG          110            43       0049         02       02           RG-M-FH-MT                       N
            RG          111            45       0051         02       02           RG-M-FH-PS                       N
            RG          112            47       0053         02       02           RG-M-FH-MR                       N
            RG          113            49       0055         02       02           RG-M-FH-MC                       N
            RG          114            51       0057         01       01           RG-M-RQMAX                       N
            RG          115            52       0058         01       01           RG-M-RQSPD                       N
            RG          116            53       0059         01       01           RG-M-CKCDS                       N
            RG          117            54       0060         01       01           RG-M-CKMNP                       N
            RG          118            55       0061         02       02           RG-M-CKMCB                       N
            RG          119            57       0063         02       02           RG-M-C-LEU                       N
            RG          120            59       0065         02       02           RG-M-C-MXP                       N
            RG          121            61       0067         02       02           RG-M-C-MCL                       N
            RG          122            63       0069         02       02           RG-M-C-MXT                       N
            RG          123            65       0071         06       05           RG-M-MEFDT                       N
            RG          124            71       0076         01       01           RG-M-MSEAS                       N
            RG          125            72       0077         01       01           RG-M-MPERD                       N
            RG          126            73       0078         02       02           RG-M-MSPFQ                       N
            RG          128            05       0005         02       02           RG-P-RQLVL                       N
            RG          129            07       0007         01       01           RG-P-TALID                       N
            RG          130            08       0008         09       09           RG-P-T-FRM                       N
            RG          131            17       0017         09       09           RG-P-T-TOP                       N
            RG          132            26       0026         03       03           RG-P-T-FRQ                       N
            RG          134            05       0005         02       02           RG-T-RQLVL                       N
            RG          135            07       0007         09       15           RG-T-CONAM                       N
            RG          136            16       0022         02       02           RG-T-MOMCL                       N
            RG          137            18       0024         02       02           RG-T-CNMCL                       N
            RG          138            20       0026         02       02           RG-T-CNSPL                       N
            RG          139            22       0028         06       05           RG-T-EFFDT                       N
            RG          140            28       0033         01       01           RG-T-ALLSR                       N
            RG          141            29       0034         01       01           RG-T-RPTIN                       N
            RG          142            30       0035         03       03           RG-T-CSPFQ                       N
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                         RECORD INFORMATION                                          NAME INFORMATION
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       FILE ID     CATALOGUE NO    TRANSACTION / FILE     TRANSACTION / FILE         MNEMONIC NAME              HISTORY CODE

         RG            143              33       0038          03        03            RG-T-HSPFQ                      N
         RG            144              36       0041          02        02            RG-T-HRSPL                      N
         RG            914              79       ****          02        02            TRAN-CODE                       N
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                                       MODEL STATE INFORMATION SYSTEM
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                        RECORD INFORMATION                                  NAME INFORMATION
                                   START POSITION         FIELD LENGTH
       FILE ID   CATALOGUE NO   TRANSACTION / FILE    TRANSACTION / FILE    MNEMONIC NAME            HISTORY CODE

         SA          356            01      0001          07      07        SA-PWS-ID                     N
         SA          357            10      0010          04      04        SA-CONID                      N
         SA          358            00      0014          00      03        SA-SAMPLID                    N
         SA          359            00      0017          00      01        SA-SAMPLTP                    N
         SA          360            00      0018          00      05        SA-SAMPLDT                    N
         SA          361            00      0023          00      04        SA-SAMPLTM                    N
         SA          362            17      0027          10      10        SA-SAMPLKY                    N
         SA          363            00      0037          00      01        SA-RECDTYP                    N
         SA          364            00      0038          01      01        SA-PWS-TYP                    N
         SA          365            00      0039          00      09        SA-POP-SRV                    N
         SA          366            00      0048          00      01        SA-SOURCE                     N
         SA          367            14      0049          03      03        SA-AN-METH                    N
         SA          368            00      0052          00      05        SA-LAB-ID                     N
         SA          369            00      0057          00      01        SA-LAB-OWN                    N
         SA          370            00      0058          00      05        SA-D-ANRSL                    N
         SA          371            00      0063          00      01        SA-D-ANDEC                    N
         SA          372            00      0064          00      05        SA-D-ANDTE                    N
         SA          373            00      0069          00      04        SA-S-HIRSL                    N
         SA          374            00      0073          00      01        SA-S-HIDEC                    N
         SA          375            00      0074          00      04        SA-S-LORSL                    N
         SA          376            00      0078          00      01        SA-S-LODEC                    N
         SA          377            00      0079          00      04        SA-S-MNRSL                    N
         SA          378            00      0083          00      01        SA-S-MNDEC                    N
         SA          379            00      0084          00      03        SA-RFD-SPL                    N
         SA          380            00      0087          00      03        SA-ACT-SPL                    N
         SA          381            00      0090          00      05        SA-PRD-STR                    N
         SA          382            00      0095          00      05        SA-PRD-END                    N
         SA          383            00      0100          00      05        SA-RGLRSPL                    N
         SA          384            00      0105          00      05        SA-SAMPLCT                    N
         SA          385            00      0110          00      05        SA-SAMPLDU                    N
         SA          386            00      0115          00      03        SA-AIR-TMP                    N
         SA          387            00      0118          00      01        SA-CHK-FED                    N
         SA          388            00      0119          00      01        SA-CHK-STA                    N
         SA          389            00      0120          00      03        SA-CHK-NUM                    N
         SA          390            00      0123          00      05        SA-VAR-MCL                    N
         SA          391            00      0128          00      01        SA-VAR-DEC                    N
         SA          392            00      0129          00      04        SA-FED-VIO                    N
         SA          393            00      0133          00      04        SA-STA-VIO                    N
         SA          394            00      0137          00      03        SA-VIO-DUR                    N
         SA          395            00      0140          00      01        SA-NOTIPUB                    N
         SA          396            00      0141          00      01        SA-NOTYSTA                    N
         SA          397            00      0143          00      01        SA-MCLVIFL                    N
         SA          398            00      0144          00      05        SA-MCLVFVL                    N
         SA          407            00      0144          00      02        SA-REGION                     N
         SA          408            00      0146          00      02        SA-DISTRIC                    N
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                                  MODEL STATE INFORMATION SYSTEM
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                          RECORD INFORMATION                                   NAME INFORMATION
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     FILE ID   CATALOGUE NO   TRANSACTION / FILE    TRANSACTION / FILE         MNEMONIC NAME             HISTORY CODE

       SA          809            00       0199         00       01            SA-MCLVFDC                    N
       SA          810            00       0200         00       05            SA-MCLVSVL                    N
       SA          811            00       0205         00       01            SA-MCLVSDC                    N
       SA          812            00       0206         00       05            SA-MCLVSSD                    N
       SA          813            00       0211         00       01            SA-FL-FUFC                    N
       SA          814            00       0212         00       01            SA-FL-SUFC                    N
       SA          815            00       0213         00       01            SA-F-SSC                      N
       SA          816            00       0214         00       01            SA-S-SSC                      N
       SA          917            08       ****         02       02            SA-TRAN-CD                    N
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                                                          MODEL STATE INFORMATION SYSTEM
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          FILE ID    CATALOGUE NO    TRANSACTION / FILE          TRANSACTION / FILE          MNEMONIC NAME               HISTORY CODE

            SH           301              00         0001              00        02            SH-FILE-ID                      N
            SH           302              00         0003              00        05            SH-REC-ID                       N
            SH           303              00         0008              00        03            SH-CAT-NO                       N
            SH           304              00         0011              00        05            SH-CUR-UP                       N
            SH           305              00         0016              00        05            SH-LST-UP                       N
            SH           306              00         0021              00        30            SH-OLD-VAL                      N
            SH           307              00         0051              00        30            SH-NEW-VAL                      N
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                                                          MODEL STATE INFORMATION SYSTEM
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                                    RECORD INFORMATION                                        NAME INFORMATION
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                 FILE ID   CATALOGUE NO   TRANSACTION / FILE       TRANSACTION / FILE        MNEMONIC NAME                HISTORY CODE

                   VE           455          01        0001           05        05            VE-ID                            Y
                   VE           456          16        0006           05        05            VE-ID-REF                        Y
                   VE           457          08        0011           07        07            VE-PHS-ID                        Y
                   VE           458          15        0018           01        01            VE-TYPE                          Y
                   VE           459          21        0019           06        05            VE-EFF-DT                        Y
                   VE           460          27        0024           06        05            VE-EXP-DT                        Y
                   VE           461          35        0029           01        01            VE-STATUS                        Y
                   VE           462          36        0030           04        04            VE-CON-ID                        Y
                   VE           463          40        0034           05        05            VE-MOD-MCL                       Y
                   VE           464          45        0039           01        01            VE-MOD-DEC                       Y
                   VE           465          46        0040           03        03            VE-TREAT                         Y
                   VE           466          49        0043           03        03            VE-ALT-TRT                       Y
                   VE           467          52        0046           03        03            VE-MOD-FRE                       Y
                   VE           468          08        ****           30        30            VE-ABSTRAC                       Y
                   VE           469          33        0529           02        02            VE-REASON                        Y
                   VE           470          00        0531           00        05            VE-LST-UP                        Y
                   VE           471          00        0536           00        02            VE-MISTONE                       Y
                   VE           472          16        ****           02        02            VE-REPEAT                        Y
                   VE           473          08        ****           06        05            VE-TAR-DT                        Y
                   VE           474          16        ****           06        05            VE-ATT-DT                        Y
                   VE           475          14        ****           02        02            VE-MIL-COD                       Y
                   VE           476          22        ****           01        01            VE-DEL-CD                        Y
                   VE           477          16        ****           30        30            VE-MIL-ABB                       Y
                   VE           905          06        ****           02        02            VE-TRAN-CD                       N
                   VE           909          08        ****           01        01            VE-CRDT-CD                       N
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MSI8030                                  MODEL STATE INFORMATION SYSTEM
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                             RECORD INFORMATION                                       NAME INFORMATION
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        FILE ID   CATALOGUE NO   TRANSACTION / FILE       TRANSACTION / FILE          MNEMONIC NAME              HISTORY CODE

          VI          326            08       0001           07        07              VI-PWS-ID                      Y
          VI          327            00       0008           00        30              VI-PWS-NAM                     Y
          VI          328            00       0038           00        01              VI-PWS-TYP                     Y
          VI          329            00       0039           00        09              VI-POPULAT                     Y
          VI          330            15       0048           02        02              VI-REG-LVL                     Y
          VI          331            17       0050           04        04              VI-CONT-ID                     Y
          VI          332            00       0054           00        01              VI-SRC-CD                      Y
          VI          333            21       0055           05        05              VI-LAB-ID                      Y
          VI          334            00       0060           00        30              VI-LAB-NAM                     Y
          VI          335            26       0090           06        05              VI-SPLDATE                     Y
          VI          336            32       0095           04        04              VI-SPLREQD                     Y
          VI          337            36       0099           04        04              VI-SPLTAKN                     Y
          VI          338            40       0103           03        03              VI-AN-METH                     Y
          VI          339            43       0106           05        05              VI-AN-RESL                     Y
          VI          340            48       0111           01        01              VI-AN-DEC                      Y
          VI          341            49       0112           06        05              VI-ANDATE                      Y
          VI          342            55       0117           06        05              VI-SAMPLCT                     Y
          VI          343            08       0122           02        02              VI-VIOL-TP                     Y
          VI          344            10       0124           06        05              VI-VIOL-DT                     Y
          VI          345            16       0129           05        05              VI-MCLVIOL                     Y
          VI          346            21       0134           01        01              VI-MCLDEC                      Y
          VI          347            22       0135           03        03              VI-SPLVIOL                     Y
          VI          348            25       0138           04        04              VI-NUMSPVI                     Y
          VI          349            29       0142           02        02              VI-VIOLDUR                     Y
          VI          350            31       0144           01        01              VI-NOTIPUB                     Y
          VI          351            32       0145           01        01              VI-NOTISTA                     Y
          VI          352            00       0146           00        02              VI-REGION                      Y
          VI          353            00       0148           00        02              VI-DISTRIC                     Y
          VI          354            33       0150           01        01              VI-SPLTYPE                     Y
          VI          355            34       0151           10        10              VI-SPLKEY                      Y
          VI          800            44       0161           06        05              VI-DT-RPT                      Y
          VI          801            50       0166           02        02              VI-LST-RPT                     Y
          VI          802            00       0168           00        01              VI-LAB-OWN                     Y
          VI          803            01       0169           05        05              VI-VIOL-ID                     Y
          VI          804            00       0174           00        05              VI-LSTUPDT                     Y
          VI          805            52       0179           25        25              VI-REMARKS                     Y
          VI          806            00       0204           00        09              VI-MCLVBSD                     Y
          VI          915            06       ****           02        02              VI-TRAN-CD                     N
          VI          916            08       ****           01        01              VI-CRDT-CD                     N
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